Chapter I

Preface to the Campaign in the West of 1940

The campaign in the West was made up of two acts.

Act one, Operation YELLOW (Gelb), includes the breakthrough and the offensive carried out from the middle sector of the German front towards the west, as far as the English Channel.

Act two, Operation RED (Rot), had as its objective the pursuit of the enemy forces from northern France and the subsequent advance towards the south, culminating in the annihilation of the French armies and in the capitulation of France.

Shortly before the beginning of the first act of this drama, fate decreed the insertion of a completely unexpected, let alone planned, prologue -- the Weser Maneuver (Weser-Übung), code designation for the operation which ended in the occupation of Denmark and Norway.

It was inevitable that this prologue should have a decisive effect on the planning and on the deadline established for the long-contemplated offensive in the West. The relationship between the western and northern theaters of operation, necessarily altered by the Weser Maneuver, must be

examined in detail if we are to be in a position to evaluate the decisions and the actions taken by Germany's military leaders prior to 10 May 1940.

For this reason, the account of the offensive in the West, beginning on 10 May 1940, will be preceded by an evaluation of the Weser Maneuver, insofar as the latter affected Operation YELLOW. This evaluation is restricted to its influence ~~xx~~ on Operation YELLOW.

As far as the deployment of the Luftwaffe was concerned, the Weser Maneuver had a decisive effect on the offensive in the West. Above all, the timing of the two operations represented a decisive factor in the overall conduct of the war, a factor which -- in turn -- cannot be separated from the developments brought about by the previous repeated postponements of the offensive in the West.

As a result, our account of the fighting in the West must be preceded by a brief summary of this complex and intimately related problem. Our summary will be divided into two parts:

I. Postponement of Operation YELLOW

II. The Weser Maneuver and its Effects on Operation YELLOW.

I. ~~Postponement of Operation~~ YELLOW

If we are to understand the psychological significance which the actual beginning of Operation YELLOW, on 10 May 1940, had for both officers and enlisted personnel, we must bear in mind that the final order to attack meant a relaxation of the tension felt by all, an end to the fruitless and nerve-racking period of waiting -- a period of waiting which both the Luftwaffe and the Army had borne for seven long months. The so-called "stationary war", to be sure, had been utilized for intensive preparation, planning, and troop training, but primarily it was a period of waiting -- waiting for the order to attack. It was certain that the order would come, but when?

In order to make clear the tension felt by both officers and enlisted personnel, it seems expedient to present a summary of the various postponements of the offensive. It is true that not all of those listed in the following summary applied to all units down to the last squadron -- some of them affected only the higher echelons; nevertheless the enlisted personnel were well aware of what was going on. Quite apart from the strategic planning incidental to the stationary war, which, of course, had its effect on the tactical planning of each individual unit, the postponements dictated from above were bound to

make themselves felt at the very lowest echelon, at least in respect to training programs, technical changes, and leave schedules -- to mention only a few of the sectors which were extremely important as far as field personnel were concerned.

During the course of seven months, the date of the offensive was set at least nineteen times -- and postponed again at least seventeen times[1].

The summary included at the end of this section indicates the exact dates involved as well as the content of the Führer Directives responsible[2].

Careful study of the summary mentioned above reveals that the following conclusions -- of fundamental importance to the purpose of the present study -- are justified:

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1 - The nineteen postponements, or rather new deadlines, can be fully substantiated. The sources detailed in Footnote 2, below, also indicate that on at least one other occasion -- at the beginning of May 1940 -- there was still another postponement, one which is mentioned but not documented. This would mean that the date of the attack was set at least twenty times.

2 - Sections 1 through 4 of the summary are based on information contained in Helmuth Greiner, "Die oberste Wehrmachtführung 1939-43" (The Wehrmacht High Command, 1939 through 1943), Limes-Verlag, Wiesbaden, 1951, pages 64-68. These data, in turn, are based on a copy of the War Diary of the Wehrmacht High Command.

Sections 5 through 19 are based on the original notes of General Keitel, Chief of the Wehrmacht High Command, who issued separate instructions to the High Command of each branch of the Wehrmacht upon receipt of each Führer Directive changing the date of the offensive. The author has had the opportunity to study these instructions. They are also referred to in IMT, Volume XXXIV, pages 284-297.

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1) The vast majority of the postponement orders referred to weather conditions -- when they indicated anything at all as a reason for delay.

This proves that the beginning of the offensive in the West depended in good part on weather conditions -- at least insofar as these might be expected to influence the employment of the Luftwaffe. The weather alone determined the date of the offensive -- and, as we thought at that time -- the outcome of the war.

2) During the period from mid-October 1939 to mid-January 1940, military leaders changed their minds almost daily. For example, the attack was set for 12 November 1939, 17 January 1940, and 20 January 1940; from 15 January to 7 May 1940, however, there was a pause of some four months. And this period of inactivity created just as much unrest as the preceding repeated alterations in plan.

Nor was this second period of indecision regarding the starting date of the offensive based exclusively on weather conditions, which, of course, were particularly unfavorable in the Western theater of operations during the winter and early spring.

There was another factor which played a significant role, a factor which necessarily postponed the final decision. Plans were being made to expand the European theater of operations to the north;

the so-called Weser Maneuver, the occupation of Denmark and Norway, was gradually taking shape.

Section II of the present chapter will explain in detail the effects which this new plan had on the tactical employment if the Luftwaffe in Operation YELLOW.

First, however, the previously mentioned summary.

SUMMARY

of the Documented Postponements of Operation YELLOW

Number	Date of Decision	Content of Führer Directive
1	16 Oct 1939	Hitler's remark to the C in C, Army: earliest possible date for the offensive between 15 - 20 November.
2	22 Oct 1939	Hitler sets 12 November 1939 as provisional date for start of offensive.
3	27 Oct 1939	Hitler's decision to be made on 5 November 1939.
4	5 Nov 1939	Offensive to begin on 12 November 1939.
5	7 Nov 1939	Deadline date postponed by three days; next decision to be made by 9 November 1939, 1800 hours.
6	9 Nov 1939	Deadline set for 19 November 1939 at the earliest; date to be determined definitely by 13 November 1939, 1800 hrs.
7	13 Nov 1939	Deadline postponed until 22 November at the earliest; decision to be announced on 16 November 1939.
8	16 Nov 1939	Deadline postponed until 26 November 1939 at the earliest; decision to be announced on 20 November.
9	20 Nov 1939	Deadline postponed until 3 December at the earliest; decision to be announced on 27 November 1939.
10	27 Nov 1939	Deadline postponed until 9 December at the earliest; decision to be announced on 4 December 1939, 1800 hours.

Number	Date of Decision	Content of Führer Directive
11	4 Dec 1939	Deadline postponed until 11 December at the earliest; decision to be announced on 6 December 1939, 1800 hrs.
12	6 Dec 1939	Deadline postponed until 17 December at the earliest; decision to be announced on 12 December 1939.
13	12 Dec 1939	Deadline postponed until 1 January 1940 at the earliest; decision to be announced by 27 December 1939, 1800.
14	27 Dec 1939	Deadline postponed by at least two weeks; decision to be announced by 9 January 1940, 1800 hours, at the latest.

~~Number~~	Date of ~~Decision~~	~~Content of Führer Directive~~
15	9 Jan 1940	Decision postponed until 10 January 1940.
16	10 Jan 1940	Deadline set at 17 January 1940.
17	15 Jan 1940	Deadline provisionally set at 20 January 1940.
18	7 May 1940	Decision to be announced on 8 May 1940.
19	9 May 1940	Deadline set at 0535 hours, 10 May 1940.

II. The Weser Maneuver; the Employment of the Luftwaffe in Denmark and Norway; the Effects of the Weser Maneuver on Operation YELLOW

Four weeks before the actual start of the offensive in the West, the officers and units stationed in the West were taken by surprise by a completely unexpected action in a previously unsuspected area, and this action helped to distract their attention from the strain of waiting for the signal to attack.

The Weser Maneuver began on 9 April 1940, a joint operation by all three branches of the German Wehrmacht with the goal of occupying Denmark and Norway. This action represented the first attempt at the strategic coordination of three Wehrmacht branches in an operation covering a relatively large area of both land and sea.

It was inevitable that there should have been an intimate relationship between the offensive in the West and the operation in the North; this relationship existed in terms of timing and deployment of forces as well as in the definition of the ultimate objectives to be achieved.

Operation YELLOW and the Weser Maneuver had been planned concurrently by the Wehrmacht High Command. The question to be decided was which of the two should be accomplished first. And the views of Germany's top military leaders varied constantly in this respect. It was even considered feasible -- from time to time, before the decision was made -- to start both offensives at the same time, or nearly at the same time.

Precisely in view of the close relationship existing between the offensives in the West and the North, it seems appropriate to examine with some care the development of the plans for the Weser Maneuver, the more so in view of the fact that this development was bound to affect the employment of the Luftwaffe in particular.

In this respect we must base our deliberations on the actual military situation in the West as well as on its psychological implications. Particular attention must be paid to the fact that Germany's top-level military leaders were eager to launch Operation YELLOW as soon as possible and to put an end to the unwelcome series of postponements, most of which were occasioned by weather conditions.

Thus their orientation towards the West was now deflected by the need to turn their attention to the North as well -- although this was true in the beginning of only a limited group, the "brain trust" of the Wehrmacht High Command. It was only very gradually and after a number of changes in the basic plan that the preparations for the Weser Maneuver began to take on a firm outline. The progress of these preparations can be fully understood only in connection with the developments in the West and the relationships of cause and effect thereby implied.

We can reconstruct the internal progress of deliberation and planning, as well as their external effects, somewhat as follows:

January 1940: Hitler conceived the idea of a deterrent action

against Scandanavia. An analysis of the political and military considerations which led to his decision would carry us beyond the proper limits of the present investigation.

5 February 1940: This marked the first meeting of a "preparatory staff" (Arbeitsstab), the so-called "brain trust" within the Wehrmacht High Command[3], whose task was the accomplishment of the preliminary practical planning for the Maneuver.

6 February 1940: At this point a new idea came into being, namely to limit the ~~Maneuver~~ operation to the occupation of Holland in the West and the execution of the Weser Maneuver, and to guarantee the neutrality of Belgium for the duration of the war[4].

Thus it is clear that some thought was given to the plan of giving up Operation YELLOW in favor of an operation directed against Norway, or at least of limiting the operation -- in the beginning anyway -- to the northernmost sector of the Western front, involving only the occupation of a part of Holland.

26 February 1940: Hitler voiced the question which was to command more and more attention during the coming weeks -- whether it was wiser to schedule the Weser Maneuver before of after Operation YELLOW[5].

In other words, Operation YELLOW was still very much a part of the planning at this time; the question of the chronological relationship of the two actions was of paramount interest.

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3 - Jodl Diary, entry dated 5 February 1940.
4 - Jodl Diary, entry dated 6 February 1940.
5 - Jodl Diary, entry dated 26 February 1940.

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28 February 1940: Hitler approved Jodl's recommendation to "prepare Operation YELLOW and the Weser Maneuver in such a way that they could be kept completely separate as far as timing and personnel were concerned".

This principle[6] remained in effect during all future developments, without necessarily having any effect on the final decision as to the chronological precedence of one action over the other.

3 March 1940: It was announced that the Weser Maneuver would take place prior to Operation YELLOW, the latter to follow "after an interval of a few days".

Shortly after the announcement, this decision was officially confirmed[7], and more detailed information recorded in the form of comments in General Halder's Diary[8].

7 March 1940: Hitler signed the final official order for the Weser Maneuver, reserving the right to determine the ultimate deadline date.

During the days preceding this decision, a sort of "palace revolution" had taken place within the top circle of Germany's military command, a revolution incited by the Luftwaffe, or -- to be more exact -- by its Commander in Chief, Goering. This gentleman had suddenly begun to interfere in the preliminary planning and had voiced his protests -- apparently rather brusquely -- over the fact that he had allegedly not been consulted in the plans so far accomplished. He stated in no uncertain terms that he considered these plans misguided, perhaps because he felt that

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6 - Jodl Diary, entry dated 28 February 1940.

7 - Jodl Diary, entry dated 3 March 1940.

8 - Jodl Diary, entry dated 6 March 1940; "The Führer thinks that he can launch a large-scale action in the West as early as three days after the beginning of the action in Norway."

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the Wehrmacht was demanding too large a contingent of Luftwaffe forces for the operation, but more probably because he resented the fact that the Luftwaffe forces involved had been temporarily removed from his command and made subordinate to the headquarters charged with the execution of the operation, the XXI Army Corps, under General von Falkenhorst.

And Goering actually succeeded in changing the original plans -- all the Luftwaffe units scheduled to participate in the Weser Maneuver were placed under the command of the X Air Corps. This Corps, which was directly subordinate to the Commander in Chief, Luftwaffe, was to receive its orders "through the Commander in Chief, Luftwaffe, at the request of the Staff, XXI Army Corps".[9]

Thus the planned integration of the first real "joint operation" of the German Wehrmacht under a central command headquarters was sabotaged by the Luftwaffe, and for reasons which had nothing to do with objective military necessity but were dictated exclusively by a desire to preserve the prestige of the Commander in Chief. That the result of the consequent "cooperation" could only be difficulties and delays in the employment of the Luftwaffe forces involved seems to have bothered him very little.

The final operational order of 7 March, however, did not definitely answer the question of the chronological relationship between the Weser Maneuver and Operation YELLOW; and, indeed, the answer to this question was reached only after a number of intervening indeterminate decisions.[10]

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9 - Jodl Diary, entry dated 4 March 1940.

10 - a) Jodl Diary, entry dated 14 March 1940; "It is questionable

Footnote 10 (cont)

whether it might not be wiser to launch Operation YELLOW before the Weser Maneuver..."

b) Jodl Diary, entry dated 26 March 1940; "The Führer refuses to be swayed - the Weser Maneuver is to come first, and this requires a dark night. This means sometime between 8 and 10 April, with Operation YELLOW coming four or five days later."

c) Halder Diary, entry dated 27 March 1940; "...five days after the Weser Maneuver, Operation YELLOW..."

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2 April 1940: This brought the clarification of the question -- the Weser Maneuver was scheduled for 9 April 1940. And this was the date on which it actually began. The deadline date for Operation YELLOW was still open, and the importance of the new developments soon relegated it to the background.

The author has considered it expedient to describe briefly the events leading up to the beginning of the Weser Maneuver because of its inevitable effects on the last combat-ready elements of the Luftwaffe in the West. Each flying unit, down to squadron level, was aware of its own carefully delineated task for the deadline date in the West and was absorbed in preparing itself for that task in terms of training, technological maintenance, and tactical orientation.

It was clear that the detachment of any of the units to participate in the Weser Maneuver, no matter how short or how long the period might be, was bound to render these preparations relatively useless inasmuch as it would inevitably require a revised assignment of missions to the units left in the West. This problem would remain, irrespective of whether the two actions were launched simultaneously or Operation YELLOW "at an interval of four or five days" later. For, in the latter case, there was no way of telling whether the units assigned to the Weser Maneuver would really be back in time to participate in the second operation, quite apart from the fact that it was impossible to predict their combat strength and thus their fighting effectiveness after participation in the Weser Maneuver.

The interrelationship between the two operations in the West and the North was considerably clearer and at the same time more decisive for the Luftwaffe than for the Army as regarded the problems of timing and the availability of personnel. For the deployment of the Army units in the West and the planning of the Army offensive in that theater were, for all practical purposes, completely unaffected by the minor role it was called upon to play in the Weser Maneuver.

Quite apart from the factors of timing and personnel, there was still another reciprocal relationship between the operations in the West and the North -- that inherent in the objectives determined for each. In addition to providing a safe route for the ore transports, the Weser Maneuver, in its occupation of Norway, was to fulfill the same purpose as Operation YELLOW, namely to provide a base for operations against England. For the occupation of Holland and Belgium, the purpose of Operation YELLOW, corresponded strategically to the occupation of Norway in that it, too, was intended to establish an air and naval base from which to carry out continued operations against England.

In other words, the strategic goals of Germany's overall conduct of the war were clear -- both in the West and in the North, her operations had only one goal, continuation of the war against England, primarily through the German Luftwaffe[11].

So far the German Luftwaffe had made preparations only for Operation YELLOW, and these preparations had been directed towards an all-out commitment

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11 - Paragraph 1 of the Führer Directive for the Weser Maneuver reads as follows: "In this way (i.e. through the occupation

Footnote 11 (cont)

of Denmark and Norway - the author), we can expand ... the base of operations against England for both the Navy and the Luftwaffe."

of Luftwaffe forces in coordination with the strategic plan of the Army. Furthermore these plans had envisioned the tying down of a large enemy force by means of Luftwaffe operations against "Fortress Holland". In retrospect it would seem that the available Luftwaffe forces were rather too few than too many for the tasks at hand.

Within the framework of the Weser Maneuver, a number of tactical Luftwaffe units were to be assigned to a simultaneous action directed against the northern sector. The significance of this for Operation YELLOW can best be evaluated later on, when the reader has had a chance to judge the total number of Luftwaffe units needed for the operation. Suffice it to say at the moment that consideration was even given to the possibility of utilizing the 7th Air Division and the 22d Infantry Division (Air Landing) -- in other words Germany's entire air landing force -- in the action in Norway. This would have meant the omission of an important phase of the contemplated operation in the West, so important, in fact, that the whole operation would have to have been scheduled anew.

There is no question that the Army and the Navy were in a position to provide the personnel needed for the Weser Maneuver without jeopardizing in any way the plans already made for the operations in the West. The Luftwaffe, however, could support only one action or the other if it did not wish to find its forces dissipated disastrously, with too few on either front to do any good at all.

Thus, in spite of the fact that this has not yet been substantiated by any recognized source, it is fairly obvious that it was the question of the commitment of the Luftwaffe which determined the final decision to schedule the two operations farther apart than had been planned originally. There was a second factor which influenced this decision.

The simulatneous scheduling of the two operations had to be abandoned for the simple reason that the launching of the offensive in the West had been necessarily made dependent from the very beginning upon a period of weather favorable for air operations. But in view of the fact that the Weser Maneuver had to be accomplished as soon as possible, since both political and military deliberations advocated -- or seemed to advocate -- the urgency of getting ahead of the British in occupying Norway, the Luftwaffe was inevitably exposed to a weather period which might well have had a detrimental effect on its employment in the West and have thus jeopardized its effectiveness there.

This theory is substantiated when we consider the requirements set up for Luftwaffe units to participate in the Weser Maneuver. As a result of the decision to ~~divide~~ stagger the two operations, at least for a short time, the following units were assigned to the X Air Corps (subordinate to the Commander in Chief, Luftwaffe) for the duration of the Weser Maneuver (Order from the Commander in Chief, Luftwaffe, Operations Staff, Operations Section,

No. 5619/40, Classified, dated 8 March 1940):

26th Bomber Wing

30th Bomber Wing

100th Bomber ~~Wing~~ Group

I Group, 1st Dive-Bomber Wing

II Group, 77th Single-Engine Fighter Wing

1st Squadron (Long-Range Reconnaissance), 122d Reconnaissance Group

1st Squadron (Long-Range Reconnaissance), 120th Reconnaissance Group

Effective 6 April 1940, the following units were to become subordinate to the X Air Corps:

4th Bomber Wing

I Group, 76th Twin-Engine Fighter Wing

I Group, 1st Twin-Engine Fighter Wing

506th Coastal Flight Group (3 squadrons)

In addition, the following units were to be assigned through the office of the Quartermaster General (Generalquartiermeister):

I Group, 1st Parachute Regiment

1st Special Duty Bomber Wing and a number of other air transport units

I Battalion, 32d Antiaircraft Artillery Regiment

II Battalion, 32d Antiaircraft Artillery Regiment

I Battalion, 611th Antiaircraft Artillery Regiment.

This meant that fairly strong Luftwaffe elements, particularly bomber units and air ~~xxx~~ transport forces, would be tied down in the North. And no one could say for how long.

In reality, the following forces were available for the Weser Maneuver as of 0530 hours on 9 April 1940[12]:

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12 - The mission assigned to the X Air Corps was as follows:

Footnote 12 (cont)

"...it is to support both land and sea operations leading to the occupation of Norway and Denmark by means of demonstrations of strength in the air as well as by the utilization of paratroopers and the air landing forces of the Army. It is expected to break enemy resistance, to protect our unloading maneuvers against enemy air interference, and to combat any air intervention or any attempt to drop landing forces on the part of the British air force. In this connection it is of the utmost importance that our Luftwaffe units take possession of the Norwegian and Danish ground organizations."

Bomber forces for operations against the British naval forces:

26th Bomber Wing (two groups equipped with He-111's)

30th Bomber Wing (three groups equipped with Ju-88's)

Forces for "air demonstrations" over the principle cities of Denmark and Norway:

4th Bomber Wing (two groups equipped with He-111's)

III Group, 26th Bomber Wing (equipped with He-111's)

100th Bomber Group (equipped with He-111's)

Forces to provide an "air umbrella" in the north:

I Group, 1st Twin-Engine Fighter Wing

I Group, 76th Twin-Engine Fighter Wing

part of the II Group, 77th Single-Engine Fighter Wing

Forces assigned to ground support operations in the event that they should prove necessary:

I Group, 1st Dive-Bomber Wing

II Group, 77th Single-Engine Fighter Wing

I Group, 4th Bomber Wing

Air transport units for the movement of troops and supplies:

fourteen air transport groups, comprising approximately 400 - 500 aircraft

Forces scheduled for air landing operations:

I Battalion, 1st Parachute Regiment (together with the necessary air transport units).

This summary of the forces available for the operation in the North is deceptive. The actual operational strength can best to assessed through

a comparison of the theoretical fighting power and the actual fighting power. A comparison of this sort is also significant in that it permits an objective conclusion in respect to the actual fighting power of the same units four weeks later, at the beginning of the offensive in the West.

Thus the author has considered it worthwhile to present a comparison between the theoretical and actual operational strength of the Luftwaffe units assigned to the Weser Maneuver.[13]

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13 - Summary I has been compiled and collated by the author. Summary II represents the compilation of data furnished by General von Rohden, former Chief of Branch VIII (Military History) of the Luftwaffe General Staff, in "Europäische Beiträge zur Geschichte des Weltkriegs II 1939-1945 - Luftkrieg" (European Contributions to the History of World War II, 1939-1945 - Aerial Warfare), Volume 14, pages 141-171.

The author naturally assumes that the figures given in General von Rohden's study were based on authentic documents.

I. Theoretical Computation

Aircraft Type	Unit	No. Aircraft per Unit	Total Strength
Bomber	26th Bomber Wing (3 grps)	96)	348
	30th Bomber Wing (3 grps)	96)	
	4th Bomber Wing (3 grps)	96)	
	100th Bomber Group	30)	
Dive-Bomber	I Grp, 1st Dive-Bomber Wing	30	30
Twin-Engine Fighter	I Grp, 1st Twin-Engine Fighter Wing	30)	60
	I Grp, 76th Twin-Engine Fighter Wing	30)	
Single-Engine Fighter	II Grp, 77th Single-Engine Fighter Wing	40	40
Reconnaissance Sqdns	1st Sqdn, 122d Recon Group	10)	20
	1st Sqdn, 120th Recon Group	10)	
Naval Air Forces	506th Coastal Flight Group	30	30
Air Transport Forces	14 groups	40	560

Summary: 348 "bomb carriers"
100 single-engine and twin-engine fighters
50 reconnaissance aircraft
560 transport aircraft

II. Actual Situation

(see Footnote 13, above)

	Aircraft Available for Immediate Employment
a) for operations against British naval forces:	
26th Bomber Wing (2 grps of He-111's)	40
30th Bomber Wing (3 grps of Ju-88's)	~~60~~
	100
b) for "air demonstrations" over Denmark and support of ground operations in Denmark:	
2 bomber groups (He-111's)	40
1 dive-bomber group (Ju-87's)	~~20~~
	60
1 single-engine fighter group (Bf-109's)	25
3 twin-engine fighter groups (Bf-109's)	10-15
(Bf-110's)	15-20
c) for operations over Norway:	
3 bomber groups (He-111's)	60
3 twin-engine fighter groups (Bf-109's)	10-15
(Bf-110's)	15-20
d) for reconnaissance activity:	
2 sqdns from the X Air Corps (He-111's)	15-18
3 sqdns, Coastal Flight Group	20-25

Summary of Aircraft Available for Immediate Employment:

220 "bomb carriers"

50-95 single-engine and twin-engine fighters

35-43 reconnaissance aircraft

400-500 transport aircraft

The last-named figure of 400-500 transport aircraft alone indicates that a considerable part of the overall air transport capacity of the entire Luftwaffe was tied up in the Weser Maneuver and was thus not available for the contemplated air landing inside Fortress Holland. This situation was made even more critical by the fact that approximately one-third of the total Luftwaffe strength employed in Norway was to be lost as a result of enemy activity and aircraft accidents. This loss amounted to about 150 aircraft, naturally a serious disadvantage for the air landing operation in the West.

But even more serious than these materiel losses, which of course could not possibly be made up in the scant four weeks available, was the fact that the veil of secrecy heretofore surrounding the carefully camouflaged "secret weapon", the parachute and air landing forces, had been lifted in a purely tactical action in a secondary theater of operations. To be sure, this was not a strategic mission, but nonetheless the existence and the tactics of the new force had been revealed. We shall leave open for the moment the question of the extent to which the Western Powers were able to evaluate and apply the experience gained in Norway to their defense in the West. But it can certainly be assumed that the unexpected ground resistance encountered by the air landing force in Holland on 10 May 1940 had been organized by the Allies on the basis of what they had learned in Norway. This will be described in more detail in the chapter dealing with air landing operations in the West.

At this point it may be wise to summarize briefly the reciprocal relationships between the operations in the West and the North and to examine them further from a number of viewpoints:

1) Any investigation of the relationships between the two plans must be based exclusively on the operational strength of the forces assigned to the X Air Corps for the start of the Weser Maneuver. In the absence of appropriate sources, we have no way of knowing whether this strength was altered by the assignment or withdrawal of any units during the course of the operation. Thus any relationship subsequent to 9 April 1940 must remain outside our consideration.

2) In summary, all the units assigned to the X Air Corps were tied down in the North for a period of unknown duration. Thus they were not immediately available for employment in the West. This statement is not entirely accurate, however, inasmuch as more than 50% of the bomber units (i.e. the 26th and 30th Bomber Wings) were retained in their previous mission, which -- at the same time -- also represented their future mission, namely air warfare against enemy naval targets. The only difference was that their theater of operations had shifted and expanded. On the one hand, they were oriented towards German operations in Norway, and on the other to the operations of the British fleet, whatever waters the latter might frequent. A shift to whatever

other ocean areas might become important in connection with Operation YELLOW could be effected at any time without changing the established base of operations.

3) Strictly speaking, then, only the following forces can truly be termed "tied down": 4 bomber groups, 1 dive-bomber group, 2 twin-engine fighter groups, 1 single-engine fighter group, and the reconnaissance aircraft. It is true, of course, that these would have been badly missed if the offensive in the West had been launched at the same time or shortly after the action in the North. This was especially true in the case of the bomber units.

4) Far more significant, though, was the fact that fourteen transport groups with approximately 500 aircraft were tied down, and that one-third of these were destined to be put out of action.

In no case would the available air transport groups have been adequate for simultaneous commitment in both the Weser Maneuver and in Operation YELLOW, at least not on the scale envisioned by the plans for these actions. (Even counting every single Ju-52 available in the entire Luftwaffe, the total would have fallen far short of the number of immediately operational aircraft required.) This fact clearly precluded the concurrent fulfillment of air landing and supply transport missions in two theaters of operations. The employment of the air transport units in Norway left only two possibilities: either the postponement of Operation YELLOW un-

til such time as the required transport units could be restored to full operational readiness, in respect to both personnel and materiel, or the abandonment of the air landing operation in Holland.

5) The strategy deliberations carried out by the top-level Wehrmacht command revealed that two alternatives had been taken under consideration:

a) should the Weser Maneuver be carried out before or after Operation YELLOW?

b) should the two operations be prepared and executed independently, as far as timing and personnel were concerned?

The decision was made in favor of carrying them out one after the other; Operation YELLOW was to be carried out after the Weser Maneuver.

There is no doubt that the inevitable interrelationship between the two offensive operations planned for the spring of 1940 was a determining factor in the decisions made by the Wehrmacht High Command. For the participation of the Luftwaffe could not be dispensed with in either operation; the occupation of Norway and on the ground, the defense against British counteroperations both at sea and in the air, and above all the supply of the German forces in the Far North -- none of these would have been possible without the commitment of a strong Luftwaffe force. On the other hand, this force would have been urgently needed if Operation YELLOW had been launched simultaneoulsy in the West, and even a short delay in its release from the Norwegian theater would have necessitated a revision of the plans made thus far.

Even though we have no substantiating documents in the form of notes made by the top-level commanders of the Wehrmacht, it is obvious that the potentialities and the limitations of the Luftwaffe determined the decision to postpone the launching of the offensive in the West not until "four or five days" after the beginning of the Weser Maneuver, but until several weeks thereafter.

The course of events in Norway need not interest us here, apart from the fact that the majority of the Luftwaffe units remained in the North throughout the entire month of April.

A chart showing the organizational structure, strength, employment guidelines, and missions of the units of the X Air Corps at the time of their assembly for the Weser Maneuver on 9 April 1940 has been included as an appendix[14].

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14 - See Appendix 30.

Chapter II

Planning and Deployment of Forces for Operation YELLOW

I. Strategic Planning and Deployment of Army Forces

A knowledge of the strategic intentions of the Army and the deployment of forces dictated by these intentions is a prerequisite to our understanding of the deployment and commitment of the Luftwaffe in the campaign in the West.

The experience gained during the campaign in Poland in 1939 had led away from the theoretical doctrine of independent warfare in the air to practical acceptance of the fact that -- in the last analysis -- even in an era in which the theories regarding aerial warfare were far ahead of the technological developments needed to put them into practice, it was the operations of the army, whose goals were the destruction of enemy forces on the ground and the occupation of enemy territory, which formed the basis for the employment of air units. And this "key to victory", which had been put to the test and found satisfactory in the East, was put into effect in the West.

Just as in Poland, the Luftwaffe units assigned to the West were to be given the primary task of destroying the enemy air forces by means of heavy, concentrated blows. If their destruction should prove impossible, then at least

they were to be weakened or paralyzed. At the same time, the Luftwaffe was to carry out attacks on the enemy's communications system in order to disrupt and render difficult the deployment of enemy forces and any attempt to shift these forces. In the case of the offensive in the West, these tasks were augmented by the need to combat not only the familiar overland transport system (railroads and highways) but also the ocean traffic between England and her Continental allies, to disrupt it and, if possible, to prevent it altogether.

The purely "strategic" employment of the Luftwaffe had been greatly expanded.

But in addition to these missions -- and certainly not less important -- it remained the chief task of the Luftwaffe in the Western offensive to provide both direct and indirect air support for the decision-seeking operations of the Army in the areas of main effort.

For this reason, any investigation of Luftwaffe employment must begin with the Army operations which were to provide the framework for the coming air activity. Nevertheless, this study is not the place for a detailed examination of the planning and execution of Army operations. We must limit ourselves to presenting a framework, and trust to the reader's personal acquaintance with the course of events on the ground.

There are two significant documents which help to reconstruct this framework:

1) Assembly Order for Operation YELLOW (Aufmarschanweisung Gelb), Army High Command, 24 February 1940[1]

2) Map pertaining to the Western campaign of 1940, showing the military situation during the period from 10 through 16 May 1940[2].

These two sources can be understood fully only when they are studied in close conjunction. Moreover the following comments and explanations would seem to be necessary:

1) The strategic plans of the Army had been subjected to thoroughgoing revision during the course of February 1940.

From October 1939 until the beginning of February 1940, the basic principle of the plans for Operation YELLOW lay in the breakthrough via Belgium, to be carried out by a strong right wing and intended to overrun the enemy troop assembly area and system of defense. (This calls to mind the so-called "Schlieffen-plan" of 1914).

During the early weeks of 1940, however, deliberations and suggestions advocating a basic change in the planned deployment of forces began to gain in currency -- as a matter of fact, at almost the same time -- within the Wehrmacht High Command, the Army High Command, and with Hitler himself. It lies beyond the purview of this study to discuss the degree of influence which General von Manstein's plan to shift the point of main effort of the offensive from the right to the center (the so-called Manstein plan)

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1 - The Assembly Order referred to here is a copy of a copy of the original. This copy was made available by the Karlsruhe

Footnote 1 (cont)

Document Collection. See Appendix 31.

2 - The map mentioned is contained in the book, "Geschichte des 2. Weltkrieges" (History of World War II), by Karl von Tippelskirch, Athanäum-Verlag, Bonn, 1954; Map No. 2, The Campaign in the West, Part I. See Appendix 32.

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may have had on the final decision. At any rate, in accordance with the information we have at hand, it would seem that von Manstein's conference with Hitler on 15 February 1940, which represented the culmination of a series of recommendations and memoranda dating back to the fall of 1939, provided the final impetus for a fundamental revision of the plan.

It is a fact, in any case, that the previous plan for Operation YELLOW was changed radically; the result was the new Assembly Order issued by the Army High Command (see Appendix 31).

2) The new strategic plan was based upon a breakthrough on the middle sector.

The map reproduced in Appendix 32 does not reflect the ultimate ramifications of the revised plan clearly; these become obvious, however, in conjunction with the Assembly Order.

The offensive was to be concentrated primarily on the area "south of the Liege-Charleroi line", in other words south of the Sambre-Meuse line[3].

The goal of the operation was surprisingly remote: "The forces ... are to fight their way through the French northern border defenses and to continue in the direction of the lower course of the Somme",[4]

This means that the map in Appendix 32 ought to be completed -- theoretically -- by the addition

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3 - Assembly Order, Paragraph 1, Subparagraph 2.
4 - Assembly Order, Paragraph 1, Subparagraph 4.

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of an arrow pointing towards the west from the area between Dinant and Sedan to the English Channel, north of the lower course of the Somme.

This was a long-range goal, one which -- if it could be achieved -- automatically meant the division of the Allied armies.

3) Inevitably, it was this large-scale and daring operation on the part of the German Army which determined the strategic planning of the Luftwaffe. For Luftwaffe employment was bound to depend upon the planned formation of the area of concentration in the ground operations, the more so as support of the Army would become increasingly important once the first blows of the strategic air arm had been delivered.

Thus it would seem to be desirable to supplement the map in Appendix 32 by a summary of the deployment of the Army forces involved, especially in view of the fact that it is always the grouping of the Army units which determines the employment of the Luftwaffe units[5].

a) assigned to the western fortification line: 17 divisions

b) held back by the Army High Command as a reserve force: 47 divisions

c) assigned to launch the initial attack: 72 divi~~sions~~

Total: 136 divisions

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5 - Tippelskirch, op. cit., pages 69-72.

The attacking force was organized as follows:

Army Group B

Eighteenth Army: 9 infantry divisions, 1 armored division, 1 cavalry division

Sixth Army: 14 infantry divisions, 2 armored divisions (the Panzer Corps Höppner)

Army Group A

Fourth Army: 12 infantry divisions, 2 armored divisions; with the Panzer Corps Hoth (2 armored divisions) ranged behind

Twelfth Army: 11 infantry divisions; with the Panzer Group von Kleist (5 armored divisions and 5 motorized divisions) ranged behind

Sixteenth Army: 15 infantry divisions.

Army Group C

First and Seventh Armies with all the rest of the divisions.

4) Moreover, within the framework of the contemplated ground operations, two surprise attacks were planned, to be carried out in close coordination between the Army and the Luftwaffe to the north of the assault front manned by Army Group B.

Operating within the area assigned to the Eighteenth Army, the Luftwaffe Air Landing Corps (Luftlandekorps), consisting of the 7th Air Division and the Army's 22d Division (Air Landing), was to be dropped by means of parachute and air landing in the so-called Fortress Holland (area near Mordijk-Dordrecht-Rotterdam-The Hague)

in order to tie down enemy forces, to capture important bridges, and to destroy the "fortress" from within.

In tactical coordination with these isolated Luftwaffe elements, fighting far away from the actual front line, advance troops from the Eighteenth Army were to make contact with them at the earliest possible moment in order to relieve them. Once contact was established, the Air Landing Corps was to be subordinate to the Eighteenth Army for the duration of the ground fighting.

In the sector assigned to the Sixth Army, the Luftwaffe was to carry out a large-scale attack designed to open the way for the Army through the Belgian border fortifications. The plan envisioned the occupation from the air of the Belgian fort Eben Emael (located between Maastricht and Liege) as well as the northern bridges over the Albert Canal by Luftwaffe engineer troops landed by newly-developed freight gliders and by paratroopers. These forces were to hold the fort and the bridges until relieved by Army units.

5) The Assembly Order for Operation YELLOW issued to the Army does not refer clearly to the joint Army-Luftwaffe operations mentioned above, nor does it make mention ~~of~~ in any other respect of the employment of Luftwaffe forces.

The coordination of Army and Luftwaffe forces is mentioned only as follows:

Paragraph 5, referring to the Eighteenth Army, in which there is a reference to "coordination with the air landing forces";

Paragraph 5, referring to the Eighteenth Army, closes with the following sentence: "It is of great importance to the Luftwaffe that the West Frisian islands be occupied as soon as possible." It can be assumed that this refers to the need for early establishment of an aircraft reporting network reaching as far west as possible.

Paragraph 7 indicates that "subsequent orders will be issued regarding the employment and missions of the Luftwaffe."

And this is all. Unfortunately the "subsequent orders" mentioned above are no longer available.

It would not be fair to interpret the extremely reserved manner in which the Assembly Order refers to the Luftwaffe as reflecting a lack of understanding and appreciation on the part of the Army for the role played by the Luftwaffe. On the contrary, the practical experience gained during the campaign in Poland and -- to a certain degree -- the theoretical conclusions deducible from the recently launched campaign in Norway all served to bring about a thoroughgoing alteration in the attitude of top-level Army commanders towards the Luftwaffe. During the preceding uncertain months of planning and preparation for the offensive in the West, the wishes and expectations of Army representatives had often gone much further

than the Luftwaffe was capable of fulfilling or meeting.

The real reason for the reserve demonstrated in the Army order was the following: Luftwaffe leaders could make their decisions in respect to the distribution and deployment of forces only on the basis of the exigencies of "strategic air warfare" on the one hand, and on the demands of direct and indirect support for the Army forces on the other. Until these factors were known, the Luftwaffe could make no definite decision as to the employment of its own forces.

Thus it is quite impossible that the Luftwaffe could have issued any official information regarding its intentions for the western offensive at the time the Army order was issued.

II. ~~The Strategic Goals of the Luftwaffe~~

It is far more difficult to reconstruct the strategic objectives defined by the Luftwaffe leaders and the practical application of these objectives in terms of the final deployment of the Luftwaffe units than was the case in connection with the goals and the resulting deployment of the Army forces. In contrast to those of the Army, the Luftwaffe goals cannot be substantiated by fixed plans or by instructions issued ahead of time, but must be deduced, so to say, from subsequent events and then fitted to the past. For so far nothing at all has come to light in the form of directives or orders issued for Operation YELLOW by the Commander in Chief, Luftwaffe, or by the

Second or Fourth Air Fleets. This means that we lack any and all documentation for an exact and objective reconstruction.

In the absence of such documentation, we have no choice but to dig out the principles in accordance with which the strategic Luftwaffe units were actually committed.

The doctrine of independent air warfare[6] advocated by Luftwaffe leaders prior to the beginning of the war had already been replaced, as a result of the experience gained during the campaign in Poland, by recognition of the fact that only close cooperation with the Army was capable of bringing about a quick and favorable decision. This tried and tested principle of the Blitzkrieg was now to be applied once more in the West; the missions of strategic air warfare, in which the primary objective was the combatting of the enemy air forces, were to be relegated to the background during the first few days of operations in favor of missions primarily designed to provide direct and indirect air support for the operations of the Army.

In evaluating this principle and the delineation of the missions to which it led, we must force ourselves to ignore the experience gained and the conclusions drawn by the world's great air powers during the last years of the war,

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6 - The reader is referred to the "Einführung in die Luftkriegstheorie der deutschen Luftwaffe" (Introduction to the Theory of Air Warfare Advocated by the German Luftwaffe) at the beginning of the author's study "Der Polenfeldzug 1939" (The Campaign in Poland in 1939).

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as well as the further development of these conclusions since the end of the war. For, in the German Luftwaffe, apart from the start represented by the establishment of the Special Duty Air Commander (Fliegerführer z.b.V.) (later the VIII Air Corps), there existed no division into a "tactical" air force, designed for coordinated operations with the ground forces, and a "strategic" air force, designed to be entrusted with the conduct of "strategic" air warfare over vast distances. There was no such thing as a "strategic bomber fleet". During the offensive in the West, as during the campaign in Poland, the German Luftwaffe was expected to accomplish both types of missions with the same forces at the same time. And this could be achieved only by means of highly flexible leadership and rapid shifts in the point of main effort.

For the offensive in the West, then, these were the primary missions assigned to the Luftwaffe:

1) Its main task was the destruction, or at least the weakening, of the enemy air forces on the ground and in the air by means of concentrated blows against the airfields, assembly areas, supply centers, etc. of the French, British, Belgian, and Dutch air forces. Priority was accorded the destruction of bomber and fighter forces on the Continent itself.

2) A secondary task, which was later to become a primary one, was to support the assault being carried out by the German armies.

From the standpoint of timing, however, the following missions were deemed to be of equal importance:

a) to break enemy resistance along the border fortifications in order to facilitate a breakthrough by the German ground forces

b) to disrupt all enemy troop movements in the rear area of the Belgian-Dutch line

c) to prevent, or at least delay the anticipated advance of the Anglo-French armies across the Belgian border towards the east

3) As a third mission, the Luftwaffe was expected to keep the enemy assembly areas and transport networks as well as the Channel ports in France, Belgium, and Holland under constant surveillance; on the basis of this surveillance, it was further expected to disrupt any enemy supply transport operations by means of attacks on railway trains and rail centers as well as on port installations and ocean traffic.

In addition, the following special missions were assigned for the first day of the offensive:

1) The first strategic air landing operations in history, the occupation of Fortress Holland by parachute and air landing forces; seizure of the most important bridges in the Rotterdam area and to the south; tying down the majority of the Dutch forces in Holland in order to help the Eighteenth Army to occupy the country as soon as possible; this, in turn, so that the Eighteenth Army might get ahead of the expected Allied advance from the

southwest into this area (see Section I).

2) The accomplishment of an air landing operation whose mission was the capture of the Eben Emael Fortress and the Albert Canal bridges to the north, in order to facilitate the breakthrough of the Sixth Army into the interior of Belgium.

3) The total disruption of the enemy command system by means of bombardment attacks on known French and British headquarters and command posts.

And, finally, the antiaircraft defense forces were assigned the following tasks within the framework of the operation, all of them of vital importance in terms of the final outcome:

1) Provision of fighter aircraft and antiaircraft artillery cover of the following:

a) assembly areas and marching routes used by the Army, especially in the vicinity of the bridges

b) the German ground organization installations

c) the bridges over the Rhine River

d) the railway stations most important for supply transport purposes.

The missions pertaining to home air defense operations (with the Ruhr District as the point of main concentration) were not affected.

In this connection, the reader's attention should be called to the principle followed at that time in the Luftwaffe command apparatus: the commanders in chief of the Second and Third Air Fleets were responsible not only for the conduct of strategic air warfare against the West

and the support of German ground operations, but also for air defense in the theater of operations as well as at home[7].

In other words, they were expected to look backwards and forwards at the same time.

III. ~~The Problem of Independent Strategic Air Warfare~~

As reflected by its final form, operational planning for the Luftwaffe had obviously been based on the premise that its primary mission would be the support of ground operations. Nevertheless -- like many another plan -- it had been subject to a number of conflicting opinions.

The present study is devoted to a discussion of one of the most hotly contested questions -- one which is still of paramount importance today. This question is one which did not affect the troops directly, but which occupied the attention of both Luftwaffe leaders and the top commanders of the Wehrmacht for months before the offensive began. This question -- in brief -- was the following: "should air operations against the West be launched at the same time as ground operations, or should they begin prior to the start of the latter?"

In other words, "independent strategic air warfare or not?"

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7 - See Section IV of this chapter for information concerning organization and chain of command.

We have no documents or commentaries concerning this question from Luftwaffe sources. All we have in the way of source material are the entries in Jodl's Diary[8]; fortunately these are not only authoritative, but also full of detail.

The first, extremely informative entry was made by Jodl as early as 15 October 1939: "Postpone launching of air warfare in view of Ruhr District."

During a conference between Jodl and Jeschonnek (Chief of the Luftwaffe General Staff) on the following day, 16 October 1939, the following question was posed: "Is it theoretically possible to hold the Anglo-French air forces in northern France under attack for days on end prior to the launching of the ground operation?"[9] There is no record of the opinions expressed on this question.

A scant three months later, on 9 January 1940, the following entry appears in Jodl's Diary: "The Chief, Wehrmacht High Command, has ordered an air attack on the French air force area out of a clear blue sky? Without flying over Belgium or Luxemburg?"

Under date of 10 January 1940, after Hitler's decision to launch the offensive on 17 January, the following entry appears: "Attack against enemy reconnaissance and fighter aircraft set up for the 12th or 13th (in retaliation for British air attacks)" -- it is not clear whether the last is meant as a statement or a question.

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8 - a) Jodl Diary, 13 October 1939 - 30 January 1940, edited and completed by General Warlimont in March 1956; Karlsruhe Document Collection.

b) Continuation of the Jodl Diary, WFA (Wehrmachtsführungs-

Footnote 8 (cont)

amt - ??), 1 February - 26 May 1940, from the records contained in IMT, Volume XXVIII, pages 397-435; Karlsruhe Document Collection, 13 November 1956.

9 - All Diary entries are quoted exactly, which explains the telegram-style in which they appear.

On 11 January 1940, Jeschonnek reports: "Advance attack impossible until the 14th." He continues: "The Führer is in doubt whether to stage the attack on the enemy air forces three days ahead of the ground offensive or at the same time."

And on 12 January 1940: "Führer still in doubt -- 1) Luftwaffe to attack enemy air forces prior to start of offensive?; 2) .....?; 3) with Third Air Fleet or Second and Third?; 4) what time of day -- morning, noon, afternoon?"

Under date of 13 January 1940, i.e. the day on which still another order was issued to postpone the start of the offensive, the Diary contains the following note, which is interesting as regards the overal evaluation of the matter:

"Führer conferring on the question of the air attack to precede the beginning of the offensive.

One must go back to the basic situation. Interval between ground and air attacks too short or too long. A Verdun in the air must be avoided at all costs.

Thus I am forbidden to order the air attack until I am certain that the ground attack will definitely take place a few days later.

1700 hours, order issued to cancel attack for the 14th.... consequently, Luftwaffe will stage its first attack on the day the offensive is launched."

Together with Hitler's decision to postpone the entire operation until spring and to "develop another action on a different basis"[10], the problem of employing the Luftwaffe before or at the same time as the ground forces was also relegated to the background. In any case it was not mentioned again until 10 February, when the following entry was made: "Feldmarschall (=Goering) says he can take off during the night ... Luftwaffe prefers to take off in the dark rather than move forward ahead of time."

The above is the last entry having to do with the problem. One has the impression that the whole question had already been decided in favor of the simultaneous launching of air and ground operations. In addition, at that time the Wehrmacht High Command was so fully occupied with the preparations for the Weser Maneuver and with the subsequent execution of the action in Norway that even such an important item as the revision of the plans for the offensive in the West was temporarily relegated to the background. There was one exception -- Hitler displayed a great deal of interest in the preparations being made for the air landing operation in the West.

But not only Hitler, the Wehrmacht High Command, and the Commander in Chief, Luftwaffe, had concerned themselves with the problem. There are a number of authoritative Army sources which -- surprisingly

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10 - Jodl Diary, entries dated 15 and 16 January 1940.

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enough -- were strongly in favor of a "strategic air campaign" against the enemy air forces prior to the launching of the offensive on the ground.

In a memorandum dated 6 December 1939 to the Army Chief of the General Staff, General von Manstein, who was at that time Chief of the General Staff, Army Group A (von Rundstedt), requested that the Luftwaffe initiate its air offensive prior to the beginning of the ground operation, "in order that the German forces might be assured of superiority in the air by the time the Army launched its offensive."[11]

The same thought is repeated a short time later in a memorandum from von Manstein to the Commander in Chief, Army[12], in which the following appears under Point IV (Luftwaffe):

> "In order to make certain that the entire Luftwaffe is available for ground support operations on the day the offensive begins, it is imperative that the Luftwaffe complete its campaign to eliminate the enemy air forces prior to the launching of the campaign on the ground.
>
> In order to accomplish this, the Luftwaffe must launch its attack at the earliest opportunity, on the first day the weather is good enough to permit the employment of aircraft, and then carry on its campaign, varying both its intensity and the targets involved according to the specific conditions concerned, up to the beginning of the ground offensive."

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11 - This quotation, as well as the following one, is from the book "Verlorene Siege" (Lost Victories), by General von Manstein; see Appendix 33.

12 - Directive from the Chief of the General Staff, Army Group A,

Footnote 12 (cont)

Operations Branch, No. 597/39, Classified, dated 18 December 1939, pertaining to proposals for the conduct of the offensive in the West.

In view of General von Manstein's acknowledged reputation as one of the most capable tacticians the Army had at that time, and in view of the fact -- as he himself specifically emphasized -- that his suggestions were submitted with the full knowledge and approval of the Commander in Chief, Army Group A, we can safely assume that these proposals did not represent the thinking of an "outsider" only, but reflected the opinions of extensive circles of the Army command hierarchy.

The following comments may be appropriate as regards this difference of opinion:

The most decisive attitude is perhaps expressed in an entry in General Jodl's Diary, in which the latter records Hitler's statement of 13 January 1940: "A Verdun in the air must be avoided at all costs."

The fact remains, however, that a reciprocal war of attrition in the air, incapable of bringing about a final decision -- and this is presumably what Hitler meant by a "Verdun in the air" -- accompanied by a stubborn ground operation of unpredictable length, might well come into being if the Luftwaffe were permitted to take advantage of a period of favorable flying weather to launch a strategic air war against the enemy air forces. The Army, on the other hand, would be forced to delay the opening of its offensive until the following period of favorable flying weather in order to be sure of direct Luftwaffe support for its operations. True enough, this might mean a delay of only a few days; on the other hand, it could just as easily be a matter of weeks.

The weather, at all events, was bound to be a determining factor in any decision concerning the offensive, if active support

from the air was to play a significant role. And, as the repeated postponements of the launching date indicate, weather of the type required was rare during the winter of 1939/40; in no case could it be forecast with any degree of certainty.

From the vantage point of history, the decision of the top-level Wehrmacht High Command to coordinate the timing of the air and ground offensives was entirely reasonable -- under the conditions obtaining at that time.

There is only one set of circumstances which might have justified the planning of an independent air action designed to destroy the enemy air forces and to gain air supremacy, to take place prior to the initiation of operations on the ground; 1) the availability of a strong, specifically "strategic" air force which could be brought to bear in its full strength; and 2) the availability of a "tactical" air force which could have taken over the task of providing direct air support for the ground operations at the same time. This would have been the only situation in which Luftwaffe dependence upon weather conditions could have no adverse effect on the operational planning of the Army, since Army operations would have been coordinated without difficulty with the weather requirements of the "tactical" Luftwaffe.

The German Luftwaffe, however, was forced to rely on the same organization and the same forces to fulfill both missions.

If the German Luftwaffe had been willing to consider undertaking these two missions separately, i.e. first an independent air war against

the enemy air forces and then the direct air support of Army operations, then Luftwaffe leadere would have had to be aware of the possible implications and repercussions of such action:

1) The air forces of both sides would be engaged in intensive combat against one another, with attrition -- though a problem on both sides -- naturally more intense on the side of the attacker. As a result, after an initial period of unpredictable length, only greatly reduced (in terms of strength and striking power) air units would be available for the direct support of Army operations. Inasmuch as the Germans had built up their ground offensive on the premise that the Luftwaffe's mission was the providing of air support for the Army, this would mean that the Army would be left without a guaranteed minimum of air support.

2) If the unexpected, but theoretically quite possible contingency should occur that the Western air forces should refuse to be drawn into a struggle for air superiority, but should place the emphasis on air defense instead, withdrawing their bomber forces to the many available emergency airfields in western and southern France in order to have them available for immediate commitment against ground operations when the German offensive actually got under way, then a German "strategic air war" would have fallen short of its goal

while suffering a considerable weakening of its forces. And this would have served, in part at least, to compensate for the relative air inferiority of the other side.

3) In addition there was the danger that an air war, once launched, might have had its effects not only on the enemy camp; it might well have been carried by the enemy air forces into the interior of the German Reich (attacks on Army troop centers, the Rhine bridges, the Ruhr District, etc.). Moreover, there was no reason to bring about -- by Luftwaffe action -- an end to the totally unexpected but nonetheless genuine reserve displayed by the Western air forces -- regardless of what their motive may have been.

4) It lay entirely within the realm of possibility that the planned direct support of Army operations might become necessary at a point at which the Luftwaffe was engaged in aerial combat with the enemy or was so weakened by initially unpredictable losses that only limited elements of the Luftwaffe might be available for commitment in ground support operations. According to the overall plan, however, the primary mission of the Luftwaffe was that of providing direct support for Army operations. Whether or not the Luftwaffe could succeed in freeing the majority of its forces for this mission from one day to the next depended not only upon its own desire to do so, but also on the actions of the enemy.

5) If the Luftwaffe should go into action too early in the game, there was the danger that the Western powers might gain valuable information regarding the employment methods and the tactics of the German Luftwaffe, enabling them to counter its future commitment both indirectly and directly. The effectiveness of such countermeasures would increase steadily, of course, with the length of the interval between the air and ground actions.

As it was, however, combat experience and the advantages to be gained therefrom remained a German prerogative to the very end.

6) In conclusion, let us turn our attention to the following basic principle followed by Germany's top military leaders.

In the opinion of German leaders, the superiority of the Luftwaffe over the Allied air forces in the West was so great that the Luftwaffe would presumably be able to achieve air supremacy within a very short time and would then be able to direct its main effort to the support of German ground operations. The "secret of success" exploited in Poland was to be applied once more. But it could only be applied if the air and ground operations could be launched simultaneously.

And this decision on the part of Germany's military leaders achieved three decisive advantages:

a) A dissipation of forces in separate and distinct missions was circumvented and a concentration of forces on the primary objective

was achieved. The German forces retained the advantage inherent in numerical superiority.

b) The factor of surprise, both on the ground and in the air, was a weapon which remained in German hands up to the end of the offensive.

c) The enemy was forced into action by a surprise attack taking place simultaneously on the ground and in the air; in other words, the German Luftwaffe determined the course of events.

IV. The Chain of Command during the Deployment of the Luftwaffe

The basis here is the organizational structure of the Luftwaffe as of 10 May 1940, in other words the chain of command applicable to the entire Luftwaffe as shown in the table[13].

Supplements to this table, and explanatory notes pertaining to it are contained in Appendix 35.

Appendix 36 indicates the personnel assigned to the various positions shown in Appendix 35.

Appendix 37 is a "Graphic Summary of the Deployment of Army and Luftwaffe Forces for Operation YELLOW, 10 May 1940".

Although accompanied by maps, this summary must be viewed as a "tentative" survey, since at that time it was hardly possible -- or even desirable --

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13 - See Appendices 34, 35, 36, and 37.

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to record the exact deployment area and targets of all the air fleets and air corps. The purpose of the summary was to illustrate clearly the potential areas of cooperation between the Army and the Luftwaffe.

V. Deployment and Striking Power of the Luftwaffe as of 10 May 1940

At present, in view of the lack of definitive sources, the deployment of the air units subordinate to the Luftwaffe headquarters shown in Appendix 37 cannot be substantiated in its entirety. Insofar as these units are clearly identified, they will be listed later on in the appropriate context.

It is just as difficult today to compute accurately the strength of the strategic air forces involved in the West on 10 May 1940. On the other hand, such a computation would seem to be urgently required inasmuch as the available published sources, domestic as well as foreign, are not only quite contradictory but clearly incline to exaggeration. This is augmented by the fact that it is extremely difficult to find a uniformly comparable critique, since the available statistics are based on the most divergent concepts and fundamental ideas, such as "actual strength", "operational strength", "unit strength", etc.

Thus, today, we can only hope to approximate the real situation at that time by means of comparisons.

In the beginning, there are figures which would seem to be substantiated.

The following is quoted from a study prepared by Branch VIII (Military History) of the Luftwaffe General Staff[14].

"At this point[15], the German Luftwaffe -- with an actual strength of 3,824 aircraft -- had the following at its disposal:

501 reconnaissance aircraft
1,120 bomber aircraft
342 dive-bomber aircraft
42 close-support aircraft
248 twin-engine fighter aircraft
1,016 single-engine fighter airdraft
401 transport aircraft
154 naval aircraft
3,824 aircraft of all types.

(based on the records of Branch VI (Quartermaster General) pertaining to the number of aircraft available for immediate employment)".

Since these figures on operational strength have obviously been taken from the records of the Quartermaster General, Luftwaffe, Luftwaffe General Staff, we must assume

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14 - "Überblick über die deutsche Luftkriegsführung 1939-1944" (Survey of Germany's Conduct of the Air War, 1939-1944), study prepared by Branch VIII, Luftwaffe General Staff.

15 - i.e. on 10 May 1940, the beginning of the campaign in the West.

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that they are accurate. But -- just what do they signify? Do they refer only to the strength of the operational units? Or do they include the materiel reserves of each unit, or perhaps the supply stocks still waiting at the depots assigned to the supply organizations? In other words, a computation of materiel alone is not very revealing.

In order to find a valid criterion, i.e. in order to form an accurate picture of the available bomber units, we must take recourse to the "Survey of Existing Bomber Units and Planned Activations up to and Including 1 July 1940" (Übersicht über die Kampfverbände und die bis 1.7.40 geplanten Neuaufstellungen)[16]. Assuming that the goals therein were being met on schedule, by 10 May 1940 a total of fourteen bomber wings, comprising forty-four groups, were available and capable of immediate employment. Assuming, further, that the aircraft strength of each of the fourteen wing staffs was six machines and that of each of the forty-four groups thirty machines (i.e. aircraft plus crew), we have a total strength of approximately 1,400 combat-ready aircraft.

Since experience has shown that at any given time roughly one-third of the aircraft in the units were, for one reason or another, not available for immediate employment, we arrive at a figure of 936 bomber aircraft capable of commitment at a moment's notice. In view of the fact that we are dealing with the initiation of a long-prepared offensive, the figure of one-third may even be somewhat exaggerated. The discrepancy between the figure (1,120) mentioned by Branch VIII of the Luftwaffe General Staff and the one (936)

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16 - See Appendix 25.

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computed just above can be readily explained by the fact that the statistics prepared by Branch VI (Quartermaster General, Luftwaffe General Staff) included the materiel reserves on hand in the line units.

By a fairly generous estimate, we can assume that there were approximately 1,000 bombers available on the take-off fields as of 10 May 1940. Analogous calculation of the strength of the other aircraft branches -- reconnaissance aircraft, dive-bombers, twin-engine and single-engine fighters -- would result in similarly proportionate figures.

As far as the last four aircraft categories are concerned, this study contains the copy of a source which provides a survey of their strength -- the Quartermaster Reports: Operational Readiness of the Units (Quartiermeistermeldungen: Einsatzbereitschaft der Verbände)[17].

The table below reflects only those figures given for the assigned reporting day of 30 March 1940, in other words they pertain to a period roughly six weeks prior to the beginning of the offensive in the West.

The summary provides the following data:

	Number of Aircraft Assigned to Units				
Strength	Bombers	Dive Bombers	Close-Support Aircraft	1-Engine Fighters	2-Engine Fighters
Authorized Strength	1,757	420	39	1,449	369
Actual Strength	1,656	411	42	1,258	325
Operational Strength	1,102	341	27	817	222

17 - See Appendix 21 and page ----- of this study.

In this connection, only the figures in the bottom horizontal row are of relevancy. Careful comparison of these figures with those given in the source cited at the beginning of this subsection (Study by Branch VIII, Luftwaffe General Staff) reveals only very slight discrepancies. It is true, of course, that an absolutely exact comparison is out of the question due to the fact that the two reporting days are some five weeks apart (30 March and 10 May 1940). And during these five weeks, the Weser Maneuver (or the operation in Norway) had taken its toll, particularly in the ranks of the bomber forces. Nevertheless, we can take it for granted that the losses suffered in the Weser Maneuver had been made up by 10 May 1940, so that we can, after all, utilize the figures reported on 30 March as a basis for determining the air strength available at the time the offensive in the West was launched on 10 May 1940.

In summary, comparison of the two available sources reveals approximately the following figures for "operational aircraft"; these, in turn, are compared with a third source, the figures published in a British study[18].

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18 - The Rise and Fall of the German Air Force, British Air Ministry; Part II: The German Air Force in the Offensive (1939-1942); (copy available in the Karlsruhe Document Collection).

1	2	3	4
Type of Unit	SOURCE QM Reports, 30 Mar 40	SOURCE Branch VIII Study 10 May 40	SOURCE British Source
Bomber	1,102	1,120	1,300
Dive Bomber	341	342	380
Close-Support	27	42	-
1-Engine Fighter	817	1,016	860
2-Engine Fighter	222	248	350
T O T A L	2,509	2,768	2,890[19]

19 - These figures have been taken from the British source cited in Footnote 18, above, insofar as they lend themselves to comparison with German calculations.

The overall summary presented by the British source, which refers to the "approximate distribution of the German Luftwaffe aircraft employed", is as follows:

1,300 long-range bombers
380 dive bombers
860 single-engine fighters
350 twin-engine fighters
300 long-range recohnaissance aircraft
340 close-range reconnaissance aircraft (for coordinated operations with the Army)

3,530 total aircraft strength; plus:
475 transport aircraft)
45 freight gliders) for the occupation of Holland

4,050 total (which formed only a part of the overall strength of the German Luftwaffe in terms of combat aircraft -- 4,500).

Apart from this last figure, the above comparison of the British source with the two German ones reveals that the British calculations were by no means wide of the mark. They reflect the actual situation with a fair degree of accuracy.

The discrepancy between the figures of the first and second sources is quite insignificant. The data provided by Branch VIII may well be accorded increased credulity since they reflect a certain growth during the intervening period -- in spite of the Weser Maneuver. On the whole, the British figures given in Column 4, above, would seem to substantiate the German ones.

Omitting the figures pertaining to reconnaissance, transport, and naval aircraft, we are left with a final figure of approximately 2,770 aircraft, plus crews, as the Luftwaffe's operational strength in the West. This figure, however, also includes the materiel reserves of the line units. A recalculation of unit strength alone would result in an even smaller figure. Moreover, at the present time it is quite impossible to compute the unit strength since we have no reliable summaries whatsoever in this field.

Strength computations of this kind for the Luftwaffe must be undertaken with a healthy degree of skepticism. For nowhere was there so much bluffing with statistics, both before and during the war, as in the German Luftwaffe.

This was not true of the Luftwaffe General Staff, nor of the troop staffs -- and least of all of the line units, who were all too aware of their weaknesses and of their constant efforts to raise the operational strength of their forces.

It was most decidedly true, however, of the top-ranking Luftwaffe leaders, above all of the Commander in Chief, Luftwaffe, himself, who accepted only those strength figures which he wanted to hear and believe in. When an authorized strength of 5,142 aircraft, for example, was reported to him by Branch VIII, experience showed again and again that it was this figure which remained in his mind -- and it was this figure which he then reported to Hitler. The fact that only a fraction of these aircraft were actually available for operations at the front was totally irrelevant as far as he was concerned, as was the fact that one could hardly term the hundreds of transport aircraft included in the overall figure as a part of the Luftwaffe's "fighting power".

It can be accepted as certain that Goering never realized that the Luftwaffe had a maximum of 1,000 bombers ready to take off from the airfields on the morning of 10 May 1940.

The author has considered it imperative to point out here the tendency on the part of the top-level Luftwaffe leaders to confuse appearances with reality, for the repercussions of these self-deceptions were to avenge themselves more and more painfully as the war progressed.

CHAPTER III

The Launching of the Offensive: The Commitment of the Luftwaffe During the First Day, 10 May 1940.

At 0535 on 10 May 1940, the German Wehrmacht marched and flew across the borders of the Reich towards the West, in the direction of Holland, Belgium, and Luxemburg.

The surprise attack scheduled for the first day of the Western offensive, long awaited by both sides, brought a number of missions for the Luftwaffe whose accomplishment was to have implications reaching far beyond the military objectives set for the first day. As the advance patrols of the German Army infantry were beginning to throw back the advance posts along the enemy frontier fortifications, the Luftwaffe dropped its first bombs on the Channel coast opposite the British Isles.

It is perhaps this example which best serves to illustrate the difference in the thinking of the Army and the Luftwaffe as regards the military aspects of space and time.

This difference had also been apparent during the lengthy period of planning which preceded the offensive.

The planning of the Army operation has its temporal and

spatial limitations. Whether and how far this operation can be carried out is determined not only by one's own intentions but also by the enemy and his often unpredictable countermeasures. For the enemy, too, has a plan of operation.

The preliminary, and highly diversified planning by the Army for the offensive in the West had been based upon recognition of the fact that it is impossible to dispose in advance over more than limited periods of time and limited areas of space. Thus the Army restricted itself to defining the immediate goals, with the intention of determining longer-range objectives later on, depending upon the overall situation, the condition of its forces, and the countermeasures of the enemy.

In view of this preliminary planning, then, it was surprising, if not revolutionary, that the final plan as defined in the "Assembly Directive for Operation YELLOW" (Aufmarschanweisung Gelb), dated 24 February 1940[1], expressly included delineation of a genuinely long-range objective -- the capture of the Channel coast north of the Somme River. The main area of concentration and the deployment of available forces were ordered in accordance with this objective.

Whereas the Army could approach a remote objective of this kind only step by step, and had to be constantly on the alert to the possibility of daily changes in its plan of operation occasioned by surprise enemy countermeasures, the planning of air operations was based not on the starting

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1 - See Appendix 31.

point of the overall operation, but on the end result of the strategic definition of the objective involved. And this type of planning naturally presupposed an entirely different kind of thinking in terms of space and time than that to which the Army was accustomed -- in spite of the potentialities of that relatively new weapon, the tank forces.

As a result, while the infantry divisions were still fighting their way step by step through the enemy fortifications just inside the border, and while the tank units were still being held in readiness for an advance through the hoped-for breakthrough gap, the Luftwaffe -- looking ahead -- was already engaged in combatting the enemy forces stationed at the Army's final objective, the Channel coast. This surely defines the areas of operation of the two Wehrmacht branches for the next time to come. Each branch devoted itself to the problem of immobilizing the enemy in its own area, and the Luftwaffe added the advantage of attack from the third dimension. Each branch supplemented the work of the other towards the achievement of a common strategic plan.

Recording the progress of an Army offensive is relatively simple; the advances achieved from the launching of the action to the attainment of the final objective can be marked each day on the map. This procedure results in a constantly accurate picture of what has been achieved and what remains to be done, and this picture, in turn, furnishes a basis for further decisions by those in charge of the action.

The accurate recording of an air operation, however, which must always be viewed as an offensive action, is much more difficult; in the first place, because the results apparent at a given moment cannot always be accepted as 100% accurate (as is nearly always the case with a map of Army operations); and in the second place, because the tactical and strategic effects actually achieved often cannot be recognized and evaluated until after some time has elapsed.

For this reason, a historical account of air operations is much more difficult than that of ground operations. The simplest approach would be to base such an account on the operational orders issued to the participating Luftwaffe elements. A comparison of such orders on a day-to-day basis would permit certain valid conclusions regarding not only overall intentions and planning, but also -- by means of a chronological comparison between past and future -- regarding the progress achieved and the goals still to be attained.

As far as the offensive in the West is concerned, however, this approach is not feasible due to the aforementioned incompleteness of the available sources[2]. For the applicable orders for the commitment of the Luftwaffe forces in the West issued by the Commander in Chief, Luftwaffe, and the Second and Third Air Fleets are unavailable, as are the resulting final orders of the Air Corps involved. Moreover, we have not a single combat or progress report from any field echelon.

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2 - In contrast to the sources used by the author in preparing the study "The Campaign in Poland in 1939" (Der Polenfeldzug 1939), which included every operational order issued by the Commander in Chief, Luftwaffe.

Thus we have no choice but to reconstruct the events of the first day and the days following from the Daily Situation Reports (Tägliche Lagemeldungen) issued by the Intelligence Section, office of the Commander in Chief, Luftwaffe[3]; These are available for the first eleven days of the Western offensive.

As a basis for and orientation concerning all subsequent operations, an account of the Luftwaffe's commitment during the first day of the offensive seems necessary. It should be stressed right at the beginning that we must forego any further accounts of this sort, for a reconstruction and detailed description of the events occurring on each day of combat would go far beyond the framework of the present study.

To begin with, the situation reports of the office of the Commander in Chief, Luftwaffe, for 10 May 1940 have been reproduced in the form of maps -- separately for each of the two Air Fleets involved -- in order to permit a clear overall view. The operations map of the Second Air Fleet is contained in Appendix 38.

Clear delineation of the distribution of individual missions to the Air Corps, etc., is not possible on the basis of the situation reports; nevertheless, the individual areas of operation can be defined with relative accuracy on the map.

The targets in Holland were the province of the forces commanded by the Special Duty General (General z.b.V.). Bombardment of these targets was directly connected with the air landing operations designed to aid in the capture of Fortress Holland.

The targets in western Belgium, along the northernmost strip of northern France, and above all the targets along the Channel coast were

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3 - For these Situation Reports, see the Karlsruhe Document Collection.

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the responsibility of the IV Air Corps, the one long-range bomber corps assigned to the Second Air Fleet.

The close-range targets located inside and to the west of the Maastricht-Liege line were assigned to the VIII Air Corps.

The operational map of the Third Air Fleet is contained in Appendix 39.

Unfortunately it shows only the targets taken under attack, so that there is no way of reconstructing their distribution among the I, II, and V Air Corps.

To be sure, elements of the Third Air Fleet, specifically the I and II Air Corps, were assigned to support the advance of the Army forces and their breakthrough through the border fortifications at the point of concentration along the combat front (breakthrough on the middle sector); nevertheless, during the first day the majority of the Third Air Fleet was engaged in strategic air warfare deep in the heart of enemy territory, primarily against the airfields utilized by the French air forces.

The inevitable difference in the type of mission assigned to each of the two Air Fleets was due to two factors:

1) The Third Air Fleet had three air corps at its disposal, all of them designed for long-range missions; in keeping with the main area of concentration of Army operations, they were massed in the south. The Second Air Fleet, on the other hand, had only one long-range air corps (the IV), while the units of the VIII Air Corps and the Special Duty General were bound in the north by locally limited missions.

2) The purely geographical delineation of the areas of operation precluded the assignment of any really long-range missions to the Second Air Fleet, and forced it to limit itself to predominantly tactical employment, while the Third Air Fleet was in a position to bring its long-range units to bear strategically over extensive portions of enemy-held territory.

As regards the maps themselves, which will be discussed in detail in the ensuing section, the following limitations must be borne in mind:

A map can hardly be expected to reveal more than the geographic distribution of the various operational phases over wide general areas. It has no way of indicating either the intensity or the ultimate success of these actions. Thus we can expect no enlightenment from the maps on the following points: Number of attacks carried out, strength of the attacking forces, effectiveness of the attacks, repetition of an attack on the same day in order to stabilize the success of the first attack, assignment of the various offensive missions to the Air Corps and the units.

I. The Operational Map of the Second Air Fleet (Appendix 38) clearly reveals three areas of main concentration:

1) The concentration of the forces assigned to the Special Duty General on targets in Fortress Holland, as preparation for and support of the air landing operation to be carried out by General Student's Air Landing Corps, made up of the 7th Air Division and the 22d Infantry Division[4].

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4 - The air landing operation is described in detail in Chapter IV, which deals with the air landing operations as a part of Operation YELLOW. Thus we can dispense with details in the present context.

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2) The concentration of the close-support units of the VIII Air Corps in the direct support of the Sixth Army during its breakthrough through the Belgian defense lines between Maastricht and Liege.

This overall strategic goal was served primarily by two tactical air operations carried out under the command of the VIII Air Corps, the occupation of Fort Eben Emael by Luftwaffe engineer troops landed by freight glider and the capture of the bridges over the Albert Canal north of the Fort[5].

In addition to their original close-support assignments, the VIII Air Corps units also attacked the Belgian airfields lying directly in front of the German battle line.

3) The missions flown by the IV Air Corps along the Channel coast clearly indicate a concentration on the bombardment of enemy airfields. Every single one of the airfields -- most of them heavily crowded -- lying in the westernmost corner of the operational area, opposite the English coast, was systemtaically attacked. These attacks were intimately connected with the plan for the overall operation; their purpose was to obviate, from the very beginning, any attempt by the British to land troops or supplies for the Continental theater or, failing this, at least to disrupt and harass any such attempts.

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5 - Both actions are discussed in detail in Chapter IV as well as in Chapter V, dealing with the employment of the close-support units of the Luftwaffe (VIII Air Corps).

In order to be able to carry out the prescribed attacks on the French and Belgian Channel ports and on Channel shipping itself, it was imperative that the enemy air defense forces along the Channel coast be neutralized from the very beginning. And most of the airfields bombarded in the initial phase were fighter bases. Thus on the very first day of operations the Luftwaffe, acting with foresight and in accordance with specific plans, indirectly launched the attack on the Channel ports, which was to be pursued with even stronger forces during the subsequent development of events. The events in the Channel theater of operations, which has been accorded far too little mention in the previous military histories, were to retain their vital importance (as will be substantiated in detail elsewhere in this study) until the completion of the Dunkirk operation at the very end of Operation YELLOW, i.e. until the evacuation of the British Continental Army to the British Isles.

The attacks on the fighter bases along the coast were carried out in close coordination with the rest of the missions of the IV Air Corps, which were directed primarily against railway lines, highways, and enemy combat headquarters on both sides of the French-Belgian border. The purpose of these attacks was to disrupt and delay the anticipated advance into Belgium of the French and British armies massed behind the French border.

Both groups of missions were dedicated to the support of ground operations. Thus they cannot be defined as phenomena belonging to the classical category of strategic air warfare; instead, they served for the direct support of the ground operations of the Army.

II. The Operational Map of the Third Air Fleet (Appendix 39) leaves no doubt as to the fact that the point of main emphasis for all the three long-range bomber corps was the combatting of the French air forces and their ground organization installations.

In contrast to the pattern of the offensive carried out by the Second Air Fleet, we are still dealing with strategic air warfare as far as the Third Air Fleet is concerned. Within the overall framework, however, a subordinate area of concentration becomes apparent -- the majority of the airfields subjected to attack were situated before the front (in the area around Reims) and along the southern flank (in the area around Metz) of the German breakthrough Army, which was advancing through Luxemburg with its southern wing in the general direction of Sedan.

In other words, this "strategic air war", whose purpose was to achieve first air superiority and then air supremacy in the most vital area of operations, was still closely coordinated with the ground operations. The concepts of "strategic air warfare" and indirect support of Army operations have become identical in this particular situation.

With its first decisive blow, which was to be followed by others in the next few days, the Third Air Fleet created the prerequisites for a breakthrough of the ground forces through the border fortifications of the enemy and for the first penetration action into enemy territory, all with practically no intervention on the part of the enemy air forces.

In view of this intense concentration on the strategic aspects of the overall plan,

the Corps' peripheral attacks in the south (the Belfort-Dijon area as far north as Lyon) and in the west (west of Paris) seemed at first to be of only secondary importance. But these attacks, too, took place with a view to the overall plan in that they made it impossible for any enemy air force reserves to be brought to the vital sector of the front. Apparently, however, the complex of airfields concentrated around Paris itself was not subjected to attack on the first day.

The attacks on enemy "communication" facilities (communication in its broadest sense) were concentrated on a clearly defined area lying on both sides of the French-Belgian border, approximately the triangle formed by Laon, Valenciennes, and Namur, and served to supplement the attacks carried out by the Second Air Fleet in the adjacent sector to the north (see the map in Appendix 38).

Thus the two Air Fleets complemented each other's share in the task of disrupting and delaying the Anglo-French advance across the Belgian border into the Belgian theater of operations.

The part played by the Third Air Fleet in direct support operations for the Army during the first battles along the border is not so clearly apparent as is that played by the Second Air Fleet. Nonetheless, there were Third Air Fleet elements engaged in ground support actions, despite the fact that their strength and time and place of employment are not clearly defined by the Situation Reports of the office of the Commander in Chief, Luftwaffe.

In connection with both maps, that of the Second Air Fleet as well as that of the Third Air Fleet, it should be pointed out that the entries are not entirely complete. On the maps used as a basis for this study (with a scale of 1:1,000,000,000), it was not possible to find the names of all the places mentioned in the Situation Reports. Consequently the following entries are missing:

Map of the Second Air Fleet

1 airfield target

3 highway targets

1 command post target

Map of the Third Air Fleet

5 airfield targets

1 command post target.

In spite of these few, relatively insignificant omissions, the maps are capable of presenting a fundamental picture of the most important targets attacked on the first day of operations and thus a fairly accurate idea of the areas of main concentration.

One must bear in mind, however, that the Situation Reports were based on the combat reports received from the lower echelons. And there is always the question of whether these were complete and accurate, even if one takes for granted the willingness of the reporting agencies to submit objective accounts of their activities.

III. Results Achieved during the First Day of the Offensive

1) The sketch entitled "Status of Combat Action as of 10 May 1940" shows the ground situation as of the evening of 10 May 1940[6].

The initial breakthrough of the enemy border fortifications succeeded on all sectors of the front. So far no point of main effort can be detected, not even on the main sector of the front, since the advance through Luxemburg was accomplished without any enemy resistance whatsoever.

2) The role played by the Luftwaffe is considerably greater than is indicated by the ground situation map. For the first and most decisive success booked by the ground forces was achieved largely through the participation of the Luftwaffe.

a) In the area assigned to the Second Air Fleet, the air landing in Fortress Holland -- far in advance of the ground front -- was a complete success. In the area Moerdijk - Dordrecht - Rotterdam - The Hague, the Luftwaffe Air Landing Corps was engaged in a bitter struggle to consolidate its gains, in the hope that it would soon be relieved by the Eighteenth Army[7].

b) In the area confronting the Sixth Army, Fort Eben Emael was immobilized for the moment at least, although its Luftwaffe conquerors were badly in need of relief by the advance elements of the German Army.

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6 - See Appendix 40.

7 - See Chapter IV of the present study.

The bridges over the Albert Canal north of Eben Emael, however, which were of decisive importance for the advance of the Sixth Army, were firmly in the hands of the German paratroopers- The VIII Air Corps, the Luftwaffe's close-support force, had smoothed the way for the Army advance into the heart of the enemy territory.

c) Along the entire combat front, the Army was able to carry out its planned operations on schedule only because the employment of the Luftwaffe in strategically important missions had eliminated any serious interference on the part of the enemy air forces.

d) Whatever intervention the enemy air forces were capable of delivering -- and this was extremely limited in terms of both duration and area -- was dissipated by Luftwaffe fighter aircraft or by the antiaircraft defenses of the I and II Antiaircraft Artillery Corps.

At the same time the batteries and batallions of these two Corps were primarily engaged in supporting the Army, and they were highly successful as assault artillery, in antitank operations, and in the bombardment of stationary fortifications[8].

3) The reconnaissance units of the Air Fleets had furnished the commanders of the offensive with comprehensive and clear data which went beyond the purely tactical information delivered by the close-range reconnaissance units employed by the Army in that ~~xxxxxx~~ they were suitable as a basis for the planning of future operations.

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8 - See Chapter X of this study for more detailed information.

Beginning at dawn, the reconnaissance units kept the traffic along the highways and railway lines under constant surveillance, especially along the French-Belgian border, and thus were able to furnish in good time an accurate account of the anticipated Anglo-French advance from northern France into Belgium. On the basis of these reports, the Luftwaffe was able to begin its attacks on the highways and railway lines involved without delay.

The airfields in enemy territory were kept under continuous observation, and as a result of the exact reports submitted by the reconnaissance units, the Luftwaffe was able to stage a number of highly successful attacks on the enemy ground organization installations. In addition, the reports provided an excellent basis for the planning of future bomber missions.

4) The reaction of the enemy air forces was a source of surprise all along the line. There was no attempt at a systematic employment of bomber units. Secondary actions, as for example the British bombardment of the bridges near Maastricht, were effectively countered by German antiaircraft artillery forces.

The enemy fighter aircraft were extremely active in certain areas, but entirely unsuccessful. The first day of operations proved conclusively that the French Morane was decidedly inferior to the German Me-109. Even the Me-110 was a match for the Morane. As an illustration, during the bomber attack on the airfield at Mourmelon (carried out by the Third Air Fleet, with an escort of twin-engine fighters), the ensuing air battle between sixteen Me-110's and twenty Moranes resulted in the confirmed destruction of seven Moranes-

On the whole, the enemy fighter units managed to escape the

first surprise attack by the German bomber forces, since they had been alerted by early warnings and were already in the air by the time the bombardment of the airfields began. Thus it must be assumed that the fighters suffered relatively few losses as a result of the German bombardment. In any case the attacking German units met with considerable fighter resistance; they managed to defend themselves successfully, but at the cost of considerable losses.

5) ~~Summary of Successes Achieved and Losses Sustained~~

Beginning at dawn, which meant that the attacking units had to take off during the night, and extending until the late evening, the Second and Third Air Fleets, employing all their available bomber, dive-bomber, close-support, single-engine, and twin-engine fighter units, managed to attack all the targets envisioned by the original plan -- airfields, railroads and highways, troop assembly areas, troop maneuvers, fortifications, and enemy command headquarters. Enemy fighter resistance had been brought to a standstill on the Dutch, Belgian, and French sectors of the Channel coast, and a start had been made in the combatting of enemy shipping traffic across the Channel.

In addition, in central and southeastern France -- and these missions must be added to the area of endeavor of the Third Air Fleet -- attacks had been carried out on industrial plants in St. Etienne, Epinal, and Reims. It is possible, of course, that these may have been alternate targets (bombarded because the airfields originally designated as targets could not be located) rather than primary targets -- this question

cannot be answered. The author is inclined to believe that this was the case.

The air landing operations on the northern sector of the front were an unqualified success.

The antiaircraft artillery forces, together with the German fighter units, had succeeded in eliminating enemy interference from the air and, consequently, in providing adequate cover for the advance on the ground. These forces had also played a significant part in the support of Army forces.

The aerial reconnaissance units had secured the information needed to plan the next day's operations.

The Situation Reports issued by the office of the Commander in Chief, Luftwaffe, provide the following figures in connection with the first day's activity against the enemy air forces:

Destroyed in the hangars:	200, perhaps even as many as 450 aircraft
Destroyed on the ground:	approximately 250 aircraft (40 French and British, 50 Dutch, 60 Belgian)
Shot down during aerial combat or by German antiaircraft artillery:	approximately 50 aircraft (3 British, 25 French, 12 Dutch, 10 Belgian).

During the same period and according to the same source, German aircraft losses were as follows:

9 Ju-88's

24 He-111's

14 Do-17's

2 Do-215's

5 He-115's

2 Ju-87's

25 Me-109's

~~2 Fi-156's~~

83 aircraft

The above figure does not include the high losses represented by the Ju-52's shot down during the air landing action in Holland or the number of Fi-156's lost as a result of crash landings.

IV. Introduction to the Following Chapters

The mass employment of the Luftwaffe on the first day of the offensive created the prerequisites for the continuation of the operations of both Luftwaffe and Army. Despite the fact that the map picture of the ground situation (see Appendix 40) is not really detailed enough to permit clear recognition of those areas of the front at which concentrated actions were to take place, nevertheless the overall picture of air activity gives a clear indication of two definite areas of concentration. In each of these, decision-seeking actions by the Luftwaffe, in advance of Army operations in point of both space and time, were already in progress before the results of the ground operations were even clearly substantiated.

The first area of concentration was in western Holland, where the air landing operation in Fortress Holland had already succeeded, far from the ground combat line of the Eighteenth Army, along the northern flank of the Army advance force.

The second area of concentration lay in eastern Belgium, where the close-support operations of the VIII Air Corps had achieved decisive tactical gains which were to have strategic significance not only for the advance of the Sixth Army but also for the scheduled course of subsequent operations in the area of concentration further south.

The first Luftwaffe action had descended upon the entire enemy front from north to south in a surprise attack from the third dimension. Its second action had torn the

first hole in the enemy defense front. Thus these actions were closely coordinated, not only to supplement one another but also to complement the operations going on on the ground. Both actions involved methods of air force employment which were new for the West; both contained an element of surprise, tactically and strategically; without a doubt, both represented points of main effort in Luftwaffe employment, not so much in terms of the strength of the forces committed as in terms of the missions assigned them and the tangible effects of the accomplishment of these missions on both sides of the front. In other words, there can be no doubt that the main emphasis, in the beginning at least, lay with the Second Air Force.

For the reasons implied in the summary above, it is obvious that the two primary areas of Luftwaffe employment require separate and detailed treatment from the most varied standpoints. There would seem to be little point in attempting to integrate the progress and course of these two operational phases into the framework of the overall operation and its subsequent development. For the operations themselves, as well as the method of employment illustrated by them, represent actions which are completely independent of other air operations. Their internal consistency and their organic development would be destroyed if one should try to integrate them into chronological phases of the overall operation as chronologically and locally limited parts of the whole.

The air landing operation in Holland represents a strategic, tactical, and chronological entity, restricted to the first four days of the offensive in the West. For this reason, its description has been

undertaken distinct from the overall developments and brought in detail in the following Chapter (dealing with the air landing action as a part of Operation YELLOW). Chapter IV deals not only with the actual details of the action but also with the planning and development leading up to it; thus the reader is given an accurate and well-rounded picture.

For the same reason, the employment of the VIII Air Corps must also be accorded separate treatment. Precisely because the degree of coordination between it and the Army, from the beginning to the end of the offensive, was so much more intense than that existing between the Army and the rest of the Air Corps, which were employed principally as long-range air units, it had a special role to play, and this role is deserving of more careful study.

In contrast to the air landing operation in Holland, the missions of the VIII Air Corps cannot be limited in point of time. Limiting them to the first day of the offensive, for example, which was to be followed by numerous instances of systematic employment towards the same end by the entire Luftwaffe, would be both inaccurate and misleading. We have no choice but to follow the commitment of the VIII Air Corps throughout the entire offensive.

Thus Chapter IV is followed by Chapter V, which represents an independent treatment of the "Employment of the Close-Support Units of the VIII Air Corps".

In keeping with the convictions expressed above, Chapter V first discusses the Sixth Army's struggle to advance after the events of the first day of the offensive, and then describes in detail the role played by the Luftwaffe in its decisive support of the ground advance on the main sector of the front up to the breakthrough to the sea, and its intervention in the battle of Flanders and Artois.

Chapter IV as well as Chapter V have been prepared as separate entities, so that each is entirely independent of the remainder of the study. With a view to helping the reader who may wish to devote more intensive study to either one of these two specialized areas, Chapters IV and V have been reduced to basic strategic and tactical frames of reference, so that a knowledge of the foregoing chapters is not a prerequisite for understanding these two.

CHAPTER IV

The Air Landing Actions within the Framework of Operation YELLOW

The first day of the long-anticipated -- or long-feared -- offensive in the West brought an equally unexpected -- or perhaps even feared -- surprise, the employment of a strong Luftwaffe force in missions of strategic significance[1].

The operational area selected was the second source of surprise. The German air landing force was not committed in coordination with the Army at its main point of concentration (the breakthrough area on the middle sector of the front), but on the extreme right flank of the overall attacking force, in other words apparently on the periphery of the operation, opposing the extreme left flank of the anticipated enemy advance, opposing Holland, which had been neutral until 10 May 1940.

This assignment, which at first glance may seem to have no more than peripheral significance, reflects in reality both military

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1 - The term "air landing force" is to be interpreted as including:
a) genuine "air landing forces", for whom the aircraft were a simple means of transport to bring them to their area of operations.
b) the "paratroopers", who leaped from the transport aircraft into their area of operation.

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and political purposefulness -- namely the attempt to neutralize the left-hand pillar of the presumable front along the borders of France, Belgium, and Holland before the Allies should have a chance to exploit it for their own purposes, as German leaders were certain that they would do if given the opportunity. In addition to this negative purpose, Germany's leaders were also motivated by the positive goals of covering from the north the right flank of the German breakthrough force, scheduled to advance from the center of the front towards the Channel, and, at the same time, of securing a basis for aerial warfare against England as soon as possible.

Since the end of September 1939, this purely military necessity had been the guiding principle of all Germany's plans in connection with the West, and it was certainly the dominating factor in Hitler's decision to switch from defensive to offensive tactics in the West[2].

Examined from this point of view, the idea of committing the surprise weapon of the war on the northernmost sector of the front gains entirely new significance -- its commitment against Fortress Holland was an integral part of the overall plan and thus was intimately connected with the ultimate strategic goal, the breakthrough in the center all the way to the Channel.

The Channel, then, was the goal of both the main penetration actions into enemy territory beyond the front; there remained only the questions of

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2 - See Section I, Chapter V, Study on the West (Studie West).

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how and when the advance of the armored forces from the area of main concentration to the sea would take place, how and when the seizure of Fortress Holland from the "third dimension" could be expected to expand into a broader base for further operations against England. And the latter, of course, was the most important as well as the longest-range objective.

From the vantage point of history, the delineation of this strategic objective seems logical and clear.

But the path leading to this logic and clarity of intention was confused and beset by variations of opinion and hesitations.

The above statement does not imply any reproach against the activity of Germany's military leaders during the years 1939/1940. The entire field of large-scale air landing operations was still an unknown quantity, not only for German leaders but, to an even greater degree, for the Allies. The German leaders, however, were the first to occupy themselves with the problems inherent in the employment of air landing forces and the first to find a solution to them. In this connection the German leaders, too, were forced to adjust their thinking from purely tactical to strategic planning, and the result was the first instance of the strategic employment of the air landing corps against Fortress Holland on 10 May 1940.

Thus it would seem to be not only justified but also imperative that we begin, not with a purely objective description of the events which took place between 10 and 14 May 1940, but rather with a very brief report on the main aspects of the development of the air landing idea during World War II.

And, to make the preceding remark even clearer, let it be understood that it refers exclusively to the clarification of the interrelationship in the field of strategy, and that this clarification is undertaken in order to help the reader integrate the strategic aspects into overall Luftwaffe planning as well as into the planning of individual Luftwaffe actions during the offensive in the West.

If the reader is to understand this Chapter in all its implications, he should be well acquainted with a comprehensive study which (at the suggestion and under the guidance of the author) was prepared during 1954 and 1955. This special study, entitled "Der Einsatz der Luftlandetruppe im Westen 1940" (The Employment of the Air Landing Corps in the West during 1940), was intended as a part of the present study, inasmuch as it supplements the latter by presenting more detailed information on developments in the fields of planning and employment[3].

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3 - The special study mentioned above is available in the Karlsruhe Document Collection.

I. Operational Planning since the Beginning of the War

Even during the campaign in Poland in 1939, the Luftwaffe's only air landing division, the 7th Air Division under the command of General Student, was held in readiness for potential employment, during which it would have utilized Silesia as a base of operations.

There was no lack of planning for the commitment of an air landing force, but somehow actual employment of the force never came about. The plans themselves, as well as the reasons why they were never realized, have been discussed in detail in the author's study dealing with operations in the East[4]. Those units of the air landing corps which actually saw active duty were employed in detached groups in ground combat, a type of activity which was clearly at variance with the commitment for which they had been trained. They were never given a chance to demonstrate the effectiveness of the new weapon they represented.

During the next phase of the war, the Weser Maneuver (i.e. the operation carried out in April 1940 to occupy Denmark and Norway), elements of the 7th Air Division were utilized in their proper function for the first time. The secret of the new weapon, hitherto carefully guarded, was revealed to the world. The commitment of the air landing force, however, as well as the degree of success achieved by it,

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4 - See the author's study "The Campaign in Poland, 1939", Volume 3; Karlsruhe Document Collection.

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can be evaluated only in terms of tactics, inasmuch as it represented primarily the employment of small paratrooper units to carry out locally limited actions. The remainder of the air actions must be classified as pure air transport missions, by means of which Army units were delivered to a previously determined tactical area; in other words, these missions had nothing to do with the actual tactical employment of air landing forces.

Once again, there had been no opportunity to carry out a strategic mission involving the employment of the air landing force as an integrated entity.

II. Operational Planning for the Offensive in the West

Yet, from the very beginning, plans had been made for commitment in a strategic mission of decisive importance.

These plans had been subject to at least as many alterations as those drawn up for the overall offensive. The planners were feeling their way towards possible solutions. The requirements deemed necessary by the Army were confronted by the performance deemed possible by the Luftwaffe, and in this connection the principle of the Commander in Chief, Luftwaffe, i.e. that "his" air landing forces were to be used primarily to further the interests of the Luftwaffe, was clearly predominant; the strategic interests of the Army were to be subordinated to this principle.

The following three plans emerge as seriously considered possibilities:

1) The only planning area which remained constant and, as a matter of fact, the only plan which was actually carried out in accordance with the original concept, was the one involving the commitment of limited forces from the 7th Air Division against targets near the border at the beginning of the offensive. The objective of this mission was to facilitate the breakthrough through the border fortifications and across the canals south of the Maastricht area (the southernmost corner of Holland) for the Sixth Army by means of a coup de main designed to seize the Belgian fort of Eben Emael (this was to involve the first employment of freight gliders with the air landing units) and by the capture of three bridges over the Albert Canal west of Maastricht by paratrooper units.

At first glance this plan seems to involve no more than a locally limited tactical objective; in the long run, however, it was an integral part of the overall strategic planning.

2) The first master plans envisioned the commitment of the entire 7th Air Division as an integral entity in the area around Ghent, with the goal of seizing the nucleus of the Belgian defense area. For the first time, this represented purely strategic planning, involving commitment far inside enemy territory, commitment which was closely connected with the operations of the Army in Belgium.

It was to be the task of the paratrooper and air landing units of the 7th Air Division to engage as many enemy forces as possible in order to keep them tied down and to draw them away from what at that time was planned to be the main route of advance for the German armies. In addition, they were to harass the enemy far behind the front by means of highly mobile warfare and to disrupt his communications system.

The risks entailed by an undertaking such as this were great, since the air landing force might well find itself in the midst of an assembly area for the Western reserve forces. And even assuming that the initial air landing should succeed according to plan, the landing force, isolated in enemy territory, would be left to its own devices for from five to eight days, until such time as a relief action on the part of the Army could begin to take effect[5].

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5 - Ghent is located approximately 100 air miles from the German border.

The views of the leading Army and Luftwaffe officers were quite divergent, those of the Army men reserved to the point of skepticism.

The "Ghent Plan" was finally abandoned for a number of reasons, the most important of which were the following:

a) In view of the shortness of daylight hours -- the operation had been scheduled for the period between November 1939 and January 1940 -- steady and effective support of the air landing operation by Luftwaffe units in strategic commitment was possible only to a very limited degree.

b) Number-wise, the air transport units were too few to guarantee the success of a sudden mass air landing of the scope originally planned. The factor of surprise would lose its value if the transport units had to operate in waves, with the aircraft landing at intervals over a long period. Moreover, the winter days were too short to permit effective accomplishment of such operations.

c) One of the Army's chief objections, and a well-justified one, was the fact that the Army division slated for air landing operations (the 22d) was inadequately equipped, especially with regard to heavy weapons.

d) And, finally, the number of available paratrooper units seemed inadequate in view of the extent of the area to be occupied and the intensity of the anticipated enemy resistance.

In any case, the "Ghent Plan" was given up.

3) The second master plan involved the employment of the air landing force to capture the Meuse bridges in the Namur-Dinant sector

and to hold them open for the advance of the German armies.

In short, Germany's leaders had renounced a long-range, truly strategic plan (the Ghent Plan) in favor of a solution which could at best be termed barely strategic in character, although in reality it came far closer to the concept of tactics[6].

The new plan, too, failed to gain the unqualified approval of Army leaders, since it was undeniably questionable whether an air landing in the middle of the Namur-Dinant-Givet defense area could succeed, and especially whether the landing force would be able to hold out on its own until relieved by the Army.

As a result, the "Dinant Plan", too, was abandoned.

4) A third plan, which had originated with Hitler himself, envisioned an air landing near Sedan, just ahead of the wedge being driven by the breakthrough armies. Their action strategically coordinated with that of the ground forces, the air units were to attack from the third dimension and thus help to speed up the advance towards the coast[7].

But this plan, too, which beyond any doubt could have been developed into an action of strategic significance, was abandoned. This time, however, its fate was due to the influence of the Luftwaffe, whose experts declared the wooded region around Sedan (which was really extremely difficult terrain) to be absolutely unsuitable for air landing operations.

In the end, this plan was given up as well.

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6 - The distance from the German border to the Meuse sector between Namur and Dinant was no more than fifty air miles.

7 - The distance between the German border and Sedan was forty-five air miles.

But, in any event, all of these plans would have had to be abandoned after 10 January, when a paratrooper officer carrying full documentation of the planned employment of the Second Air Fleet in general and of the air landing forces in particular found it necessary to make a forced landing in Belgium (the Reinberger case). This meant that the most closely guarded intentions and plans of Germany's military leaders were now in the enemy's hands.

It remains unclear whether the Allies accepted the captured German documents as valid or whether they considered the whole affair to be a deliberate attempt at deception; and the other, closely allied question of whether the Reinberger affair was really the reason for the complete change in the German operational plans[8] must also remain open. Nevertheless, the fact remains that all previous plans for an air landing operation had become invalid; a completely new operation had to be devised.

5) The last and final plan for an air landing operation was based on the new operational plan of 10 January 1940, which -- following the so-called Manstein Plan -- revolved around the central principle of a breakthrough on the middle sector rather than on the heretofore eagerly advocated strong right wing.

Within the framework of this new allocation of areas of main concentration, however, there was no provision for the employment of the air landing force. Instead,

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8 - In the personal opinion of the author of the present study, this is not accurate. The new deployment of forces in accordance with the Manstein Plan had already been incorporated into the planning, and preparations were already under way for it.

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a large-scale air landing action of strategic significance, to be carried out by the 7th Air Fivision, was planned to take place far out in front of the extreme right wing of the main overall front.

Once Germany's top-level leaders had made up their minds to violate not only the neutrality of Belgium but that of Holland as well, it was clear that the fortified center of Holland, the so-called Fortress Holland, was bound to acquire decisive importance for the overall planning of the German operation.

Moving forward along the right wing of Army Group B, the Eighteenth Army was to overrun Holland as rapidly as possible along either side of the Waal River and then to push through towards the coast, so that Holland could be exploited at the earliest possible moment as a base from which to threaten, by means of attacks on the ground and above all from the air, the flank of the Allied armies which were bound to be deployed in Belgium.

To the south of the Eighteenth Army, the Sixth Army was to invade enemy territory and, after breaking through the border fortifications, to tie down as many enemy forces as possible by means of frontal attack.

A glance at the map makes it clear that there were formidable topographical obstacles to be overcome in any advance -- broad rivers, canals, flood areas. And these obstacles would be effectively supplemented, as German leaders well knew, by the expansion of the fortification area known as Fortress Holland[9].

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9 - In the beginning, Fortress Holland comprised the central core of the actual fortifications, which was bounded on the east by the so-called "new water-line", stretching from the Zuyder Zee southeast of Amsterdam towards the south as far as the Meuse. Its southern boundary was

~~Footnote~~ 9 (~~cont~~)

formed by the confluence of the Meuse and the Waal. There were two lines of field fortifications extending towards the east; these followed the topographical features of the terrain (rivers, for example) and were known as the Grebbe and Peel positions. Finally there was the Ijssel Line, which ran close along the border and joined the Meuse position as far as Maastricht.

A rapid success for the advance of the Eighteenth Army could be guaranteed only on the condition that the following objectives could be achieved as soon as possible:

a) The capture of the most important crossing-points over the river-like bodies of water near Rotterdam, Dordrecht, and Moerdijk. Further operations -- either towards the north or, later on, towards the south -- would be impossible until these crossing-points were firmly in German hands.

b) The Dutch Army would have to be prevented from grouping itself for the systematic defense of the various fortifications lines making up Fortress Holland. These fortifications would have to be invaded and taken from the rear.

c) The Dutch Army, and especially its reserves, would have to be eliminated completely as a combat factor.

d) The Dutch government would have to be captured, thus eliminating any possibility of its organizing a resistance movement in the country; this was a purely political secondary mission of the undertaking.

These objectives were to be accomplished by means of a coup de main carried out by the air landing forces far in advance of the front of the Eighteenth Army.

On 10 January, as noted above, the previous plan of operation had fallen into Allied hands.

On 15 January, the Commander in Chief, Luftwaffe, turned over the new air landing plan to General Student, Commander of the 7th Air Division, and placed him in charge of preparing and executing the action.

General Student had the following forces at his disposal:

a) the 7th Air Division of the Luftwaffe, comprised primarily of paratrooper units; and

b) the 22d Infantry Division of the Army, which was already -- at least a part of it -- trained in air landing operations.

These two divisions were to be formed into an air landing corps under General Student's command.

General Student was given a secondary task, which, however, was no less important and strategically vital than the main operation against Fortress Holland; utilizing limited elements of the Air Landing Corps, Student was to prepare the way for the Sixth Army advance across the Meuse and the Albert Canal. This was the only phase of the final plan which had survived all the previous alterations in the role of the air landing forces (see Section III, 2), a) of this Chapter, below). The Belgian border fort of Eben Emael was to be captured as well as the bridges over the Canal.

Before we move on to examine and evaluate the realization of the final plan for the employment of the air landing forces, it seems advisable -- for reasons of historical completeness -- to at least mention another air landing action which was organized and carried out outside the framework of the Air Landing Corps and without General Student's knowledge, much less participation. This action had nothing to do with strategic planning, but was a purely tactical episode which took place in the area assigned to the Third Air Fleet.

Along the front of the Panzer Corps Guderian, which was standing ready for a breakthrough through Luxemburg and the northern tip of Belgium into the direction of Sedan,

an infantry battalion was loaded into Fieseler-Storks, at Goering's order. As the German advance began, these forces were to be landed behind the Belgian border fortifications line west of Martelange (east of Neufchateau) in order to foment unrest behind the enemy front, to evoke the appearance of an attack by much stronger forces, and to tie down enemy units.

This action was actually carried out, but apparently the forces involved were so widely dissipated that no tangible success could be achieved. For this reason, there seems to be no point in our describing it in greater detail at this juncture[10].

All the various plans for air landing actions described in the foregoing pages can be found in the "Schematic Summary of the Air Landing Actions in the Western Offensive"[11].

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10 - Detailed descriptions may be found in the following works:
a) Generaloberst Guderian, Memoirs of a Soldier (Erinnerungen eines Soldaten), K. Vohwinkel, Publishers, Heidelberg, 1951, page 88.
b) A. von Hove, Watch Out, Paratroopers (Achtung, Fallschirmjäger), Druffel, Publishers, 1954, pages 70 and 93-95.

11 - See Appendix 41.

III. ~~The Air Landing in Fortress Holland~~

1) Chain of Command and Organization of Forces

On the morning of 10 May 1940, the Air Landing Corps was ready for action; its organizational structure and line of command were as shown in the Appendix[12].

The chain of command merits critical attention. It was a compromise resulting from a long series of developments and could not be viewed as entirely satisfactory. Its defects inevitably made themselves felt in the operations carried out by the Corps. It would take us too far afield to examine the causes of the resulting mis-construction; suffice it to say that they were primarily the result of selfish interest on the part of individual personages.

The most serious defects were the following:

a) The Air Landing Corps and the 7th Air Division were commanded by the same person. The Corps did not even have an operations staff of its own. The Commanding General naturally felt himself to be primarily commander of his old division; and, as a matter of fact, he personally led his division in battle. The Corps hardly appeared in the picture at all. From the point of view of effective command, the most logical solution would have been the subordination of the commanders of the two divisions concerned to a Corps having a full command hierarchy.

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12 - See Appendix 42.

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b) The already unclear chain of command was confused even further by the fact that the commanding general also seemed determined to extend his direct command to individual units of the air transport forces. This implied, to be sure, that a "Commander of the Air Transport Forces" (Führer der Lufttransportverbände) ought to have been subordinate to him. In reality, however, the two air transport wings were directly under his command. The most practical solution would have been to place the two air landing divisions directly in charge of the air transport facilities they required.

c) Strangely enough, the Special Duty General, as commander of the strategic air units whose air attack and close-support forces were standing by to support the air landing operation, was directly subordinate to the Second Air Fleet, with instructions to coordinate his operations with those of the Air Landing Corps. In view of the circumstances obtaining at the time, this compromise solution (all too typical of the era in question), which assiduously avoided actual "subordination" for reasons which were more often purely personal than objective, seems completely incomprehensible. Precisely as a result of the novelty of the mission and the uncertainty of further developments (in view of the predictably unpredictable deployment of the units in terms of tactical and geographical assignment during the battle), a more firmly delineated leadership of the air attack and close support units under the Air Landing Corps should have been accepted as an urgent necessity.

This, of course, would have presupposed that the Corps was really in a position to provide such leadership (operations

staff, communications facilities, freedom of choice in selecting its command headquarters site). A chain of command via the Air Fleet could be nothing but a detour in the long run.

Assuming that the Air Fleet regarded the Special Duty General and his units as a part of the "strategic Luftwaffe" placed under its command, and that it might require all or a part of these forces for other missions as well, depending upon developments in the overall situation, the Air Fleet should have been accorded the right to detach or assign troop elements at will. This cannot be construed as a grounds for protest against the subordination of the Special Duty General to the Air Landing Corps.

There is still a fourth point which must be mentioned, a point which cannot be clearly evaluated on the basis or organizational structure, but which nonetheless is certainly responsible -- at least in part -- for the deficiencies in that organization. During the period devoted to the planning and preparation of the air landing action -- a period which lasted for several months -- both Hitler and the Commander in Chief, Luftwaffe, as well as the Luftwaffe Operations Staff had intervened to an ever greater degree in the details of the planning, often without bothering to keep the nominally responsible Second Air Fleet informed of what they were doing, so that the latter was confronted with faits accomplis in the form of decisions already made.

As a result, the overall organizational hierarchy finally turned out to be a compromise solution based on a number of divergent decisions and opinions. Those aspects based purely on military necessity, which should have been championed by the Second Air Fleet,

now more than ever, were increasingly relegated to the background[13].

2) ~~Detailed Summary of the Missions Assigned to the Air Landing Corps~~

The fourth and last plan for the employment of the air landing forces[14] envisioned the following steps:

The 7th Air Division was to be employed to drop paratroopers and to deliver air landing forces in the Moerdijk-Dordrecht-Rotterdam area so that they could seize the delta arms of the Meuse and the Rhine and keep them open for the Army's mobile troops fighting their way forward south of the Waal in the Tilburg area.

The 22d Infantry Division (Air Landing) was to be set down at three airfields around The Hague. Its mission was to seize the capital and, at one blow, to eliminate the danger of resistance on the part of Holland's royal family, government, and armed forces headquarters[15].

The point of main effort lay with the 7th Air Division.

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13 - The author's view, as expressed here, is substantiated to a certain extent by Generalfeldmarschall Kesselring, former Commander in Chief of the Second Air Fleet, who brings the following rather cautious comments in his book: "As far as the Air Landing Corps was concerned, Hitler himself had determined the detailed strategic and tactical aspects of the air landing action." (pages 70/71); and "The command function was rendered even more difficult by the fact that Hitler and Goering personally intervened in the preparations for the air landing operation; as a result, General Student was degraded to the status of an intermediary, to which -- as a matter of fact -- he was not at all averse." (page 72).
Actually, it was the responsibility of the Commander in Chief, Second Air Fleet, to prevent any developments of this sort. His effectiveness in this particular respect must remain an open question.

14 - See Appendix 1, Paragraph 5.

15 - See Appendix 42; this special mission was assigned to a paratrooper bat/allion of the 7th Air Division which was to land in and around The Hague.

The map included as an Appendex shows the following[16]:

the planned areas of operation of the 7th Air Division and the 22d Infantry Division; the landing areas of the two divisions east of the Rhine and their joint approach course for the air landing operation; and the tentative advance routes of the Eighteenth and Sixth Armies, as well as -- of even greater importance -- that of the 9th Panzer Division, which was to be the first to reach and relieve the Air Landing Corps.

Even at first glance, this plan evokes the following critical comments:

1) The fact that the 7th Air Division was assigned to the point of main effort was clearly in keeping with the fundamental strategy responsible for the employment of the Air Landing Corps in Fortress Holland; as a preliminary step, it was necessary to take the bridges leading into Fortress Holland in order that the "fortress" might be seized from within; the next step, necessary to permit the Army operations towards the south (i.e. into Belgium), planned to follow the capture of Fortress Holland, was to occupy the most important Dutch river crossings and to keep them firmly in German hands.

In other words, the delineation of the missions assigned to the 7th Air Division had been based on purely military deliberations.

2) In contrast, the employment of the 22d Infantry Division originated from the desire to attain a purely political goal ordered by Hitler -- the seizure of a government which, after the morning of 10 May 1940, had every right to consider itself

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16 - See Appendix 43.

"hostile", and the elimination of any and all factors conducive to effective leadership by the state, the population, and the armed forces.

Quite apart from the fact that this political goal could not be achieved, since it was doomed to failure from the standpoint of its military feasibility, the commitment of an entire division -- and a particularly valuable division, at that -- right at the beginning represented a waste of forces which could have been utilized to far better effect under the circumstances prevailing elsewhere on the offensive front. If Fortress Holland was eliminated as a factor of strategic significance, then it was irrelevant what happened to Dutch political leadership, which, in any case, would have been neutralized by the military success of the enemy.

3) From the vantage point of the overall situation, as reflected by Appendix 43, the air landing action, which was to be developed parallel to the front line of the Belgian Army, entailed a decided risk. It could succeed only if the following anticipated factors should turn out as planned:

a) the successful outcome of the Eighteenth Army's breakthrough and advance through the Dutch fortifications line

b) the prompt advance (within three days) of the 9th Panzer Division to relieve the Air Landing Corps

c) the failure to act on the part of the Belgian forces facing the Sixth Army

d) the lack of any enemy support in northern France

e) the inactivity of the Allied air forces.

Realization of every single one of the above conditions was imperative.

III. Accomplishment of the Air Landing Action

The offensive in the West began at 0535 on 10 May 1940 along the entire front.

The air landing operation against Fortress Holland, planned with exemplary care and admirable imagination by General Student, ran with clock-like precision -- as long as it remained in the air.

The attack units under the command of the Special Duty General, or at least those elements which were fully capable of instrument flight, flew in from the sea and took Fortress Holland completely by surprise. By means of intensive bombardment they succeeded in eliminating the Dutch security forces and other antiaircraft defense forces from the airfields selected as landing bases for the Luftwaffe[17]. They also bombed known Dutch fighter bases in order to eliminate the danger of enemy defensive operations in the air, and were highly successful in utilizing their dive-bombers to attack the enemy bunkers at the Moerdjik bridgehead in order to pin down the forces holding it.

The units assigned to the Second Fighter Commander (Jafü 2) were given the sole mission of providing air cover for the air transport action and the air landing itself. A carefully calculated schedule guaranteed an uninterrupted air umbrella over the transport units while they were in flight. In reality, however, owing to the vast extent of the

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17 - These were Waalhaven, near Rotterdam, for the 7th Air Division, and Valkenburg, Ypenburg, and Ockenburg, surrounding The Hague, for the 22d Infantry Division.

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enemy territory involved, the number of transport aircraft to be protected and their distribution among several waves, and the numerical inadequacy of the available single-engine and twin-engine fighter units, this "umbrella" could be no more than a rather thin veil.

The air transport action, carried out under cover provided by the above-mentioned fighter veil, went off according to plan. Because of the shortage of air transport space, the maneuver had to be repeated in a number of waves. The approach route lay just about equidistant from Nymwegen and Arnheim, and followed the course of the Waal towards the west; east of Rotterdam it split off towards the two planned landing areas[18].

The air transport undertaking as such was accomplished exactly as planned; not a single enemy fighter put in an appearance; favorable weather conditions made it possible for the aircraft to maintain the course and altitudes assigned; and the enemy antiaircraft artillery fire, in any case sporadic, was completely without effect. The landing areas were reached without any losses whatsoever.

The real troubles did not begin until the landing force was dropped or set down, as the case might be, at its designated landing points -- to find itself in the midst of an enemy who had been warned of what was coming and was prepared to defend himself.

Nevertheless, the 7th Air Division succeeded in carrying out its mission in the southern operational area in almost all respects, albeit with losses.

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18 - See the map in Appendix 43.

The action of the 22d Infantry Division in The Hague was a failure, with even heavier losses.

The general outlines of the two operations were as follows:

A. The Operational Area of the 7th Air Division

1. The only air landing action to succeed 100% in Holland was the coup de main-like capture of the two bridges at Moerdijk. In part because the Dutch bridge sentries had been psychologically deeply shaken by a German dive-bomber attack which had just taken place, the paratroopers succeeded in preventing the enemy from blowing up the bridges and in establishing and holding bridgeheads on both sides of the river.

For two reasons, this victory was of great significance for the further course of operations:

a) advance elements of the German Army, coming up from the south, were to penetrate into Fortress Holland via these bridges in order to relieve the Air Landing Corps[19]

b) these bridges were to serve as links in the Army supply line towards the south, once Holland had been completely occupied and the planned operations in Belgium and northern France brought to a successful conclusion.

2. The second operational area assigned to the 7th Air Division was the region around Dordrecht. Here, too, the bridges were taken successfully. As for the rest, however,

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19 - The railway bridge was 5,900 ft. long and the highway bridge 4,600 ft.

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the relatively weak German element was barely able to hold its own against strong enemy forces. For the time being, at any rate, coordinated operations with the German units in the Rotterdam area were out of the question.

3. The point of main effort for the 7th Air Division lay in the area of Rotterdam.

To begin with, both the paratrooper jump and the air landing on the heavily protected and stubbornly defended airfield at Waalhaven succeeded -- a failure at this point would have placed the entire operation in jeopardy, since Waalhaven was the only available airfield far and wide which was capable of accomodating the subsequent air transport waves as well as the later supply flights.

After heavy fighting and at the cost of serious losses, the German invaders also managed to capture the bridge over the Meuse at Rotterdam itself, the actual goal of the operation. There were only a few German forces available, however, to take over the establishment of this northern bridgehead, since the majority were pinned down by enemy fire south of the bridgehead. The bridge itself acquired the status of a kind of no man's land, since it was useless to both sides.

B. ~~The Operational Area of the 22d Infantry Division (Air Landing)~~

There were difficulties here from the very beginning. For example, the paratroopers[20] failed to land at their assigned target areas, and the air landings on the airfields located around The Hague were failures to a greater or lesser degree.

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20 - The Division had been strengthened by the assignment of one paratrooper battalion from the 7th Air Division.

The 22d Infantry Division, too, had encountered an enemy prepared to offer resistance. The difficulties already inherent in the situation were augmented by the fact that the three airfields were far less well-equipped than anticipated, being totally unsuited to accomodate heavily laden machines.

The result was that the advance elements of the 22d Infantry Division (parachute as well as air landing forces) were tied down immediately in heavy fighting on the ground. A good many of the transport aircraft crashed and blocked the landing fields with their wreckage, so that the planned subsequent waves of aircraft had to be cancelled.

By the evening of 10 May, only about one-fourth of the total landing force had actually been landed, at fourteen different points. The Division was hopelessly dissipated, unified leadership was impossible, and there was no channel of communication to the Air Landing Corps.

By noon of the first day of operations, it was clear that the undertaking of the 22d Infantry Division was a tactical failure, and a failure which had cost the German forces heavy losses.

At the same time, however, it must be accounted a success from the point of view of strategy. For the 22d Infantry Division had landed right in the middle of the Dutch Army reserves (the Dutch I Army Corps, standing by on alert) and was thus containing three enemy divisions.

The hard-pressed infantry troops fighting around The Hague, however, knew nothing of these developments.

IV. The Situation on the Evening of 10 May

The mission assigned to the 7th Air Division had been fulfilled to a large extent, the most important bridges were in German hands. The three assault groups had still not made contact with one another; the command post, utilized by both the Commanding General and the Commander of the Division, was just south of Rotterdam. There was no communication at all with the 22d Infantry Division. Dutch counterattacks were in progress on all sides.

The single airfield at Waalhaven had been so badly damaged by ground artillery fire and a raid by British bombers that it could hardly be used. As a result the problem of bringing in supplies and reinforcements was highly acute, and rendered even more so by the fact that the loss in transport capacity was a good deal greater and more serious than had been anticipated.

Thus -- in spite of the successes achieved -- the situation was critical. Its solution depended upon whether and how soon the advance Army elements would be able to contact the landing force on the ground. Even under the most favorable conditions, this could not be expected to happen for at least two days. On the other hand, there was a very real danger that the Anglo-French forces advancing towards Belgium might dispatch an assault element to relieve the bridgehead position from the south. It was also a matter of grave concern just when the Dutch Army, organized for its counter-attack in the meantime, would launch its operations from the south.

The mission assigned to the 22d Infantry Division was a complete failure.

The three airfields at which the first troops had been landed had already been recaptured by the Dutch in a series of counterattacks. The task forces which had been landed along the coast, now widely dissipated and without unified leadership, were fighting for their very lives.

The division commander had gathered the scattered elements of his division and was engaged in combat south of The Hague. Here he received a radio order -- the only possible kind of order under the circumstances -- from the Second Air Fleet to abandon the mission against The Hague and to fight his way south in order to cut off Rotterdam from the north, thus coordinating his efforts with those of the 7th Air Division.

The overall situation was extremely critical as of the late evening of the first day of the attack:

from the south -- assaults by enemy motorized forces against the bridges of Moerdijk were expected momentarily;

from the north -- the numerically superior enemy was pressing hard on the heels of the 22d Infantry Division forces withdrawing towards Rotterdam;

from the east -- Dutch divisions, after having given up the Ijessel position under pressure exerted by the Eighteenth Army and probably in part under the influence of the German air landing, were now advancing along the Waal towards Fortress Holland;

in the west -- was the sea.

The German forces could no longer count on reinforcements of any great strength,

inasmuch as all the airfields were in enemy hands and so much transport capacity had been lost. Only a few troops could still be landed on the Dordrecht-Rotterdam autobahn.

There was little hope of support from the air, i.e. from the forces of the Special Duty General, since the front line running through the northern as well as the southern battlefield was so unpredictably irregular and so subject to sudden changes that it was extremely difficult, if not impossible, to carry out attacks from the air without endangering the German troops.

A number of individual, highly effective attacks ordered by General Student succeeded in bringing some relief by dint of destroying more remote enemy targets such as active artillery batteries, assembly areas used by reserve troops, etc.

The command of the Air Landing Corps had been more or less eliminated. The corps and division commander (a single individual), who had moved his headquarters during the night from Rotterdam to Dordrecht, could no longer exercise direct command over any but the groups fighting in his immediate vicinity. He had no influence over the 22d Infantry Division.

V. ~~The Development of the Situation up to 14 May~~

During the course of 11 May, the situation was building up to a crisis. During the night, the airfield at Waalhaven had been under continuous attack by British bombers, and German aircraft could

take off and land only one at a time.

Enemy pressure on the bridges in Rotterdam grew so heavy that General Student even considered giving them up.

Dutch forces had broken through in the vicinity of Dordrecht and were trying to recapture the bridges, so that the last German reserves had to be thrown into action at this point. They were all tied down in the town of Dordrecht in heavy street fighting, which lasted until the capitulation on 13 May.

The paratrooper battalion which had landed near the bridges at Moerdijk was encircled from all sides by enemy troops.

The situation in the northern area of operations was no better than in the south. The combat force under General Graf Sponneck, fighting northwest of Rotterdam, was also surrounded by the enemy. A number of air attacks were undertaken, but failed to bring any noticeable relief.

While the tactical situation of the Air Landing Corps in Fortress Holland grew steadily worse, the strategic status of the air landing operation was also rapidly approaching a grave crisis.

As had been anticipated, a strong motorized force of the French Army was under way via Antwerp in the direction of Breda, representing a serious threat to the entire air landing operation from the south.

Although the air units of the Special Duty General had so far been unable to contribute any effective tactical support to the hard-pressed troops on the ground or to provide any noticeable relief for them, they now found their "strategic mission" cut out for them. German reconnaissance had discovered the threat approaching from the south in good time, and all the groups of the 4th Bomber Wing, as well as elements from the fighter wings, concentrated on low and high-altitude attacks which succeeded completely in frustrating the enemy attempt to combat the air landing operation from the rear. The attempt was not repeated.

Thus the race between the fast German troops advancing from the east and the French motorized units hurrying up from the southwest was decided. The air landing operation had been saved strategically -- now all it had to do was to succeed tactically.

On 12 May the crisis subsided. The reconnaissance battalion of the 9th Panzer Division, which had advanced along the left wing of the Eighteenth Army, managed to make contact in the early afternoon with the paratroopers at the Moerdijk bridges.

On 13 May the majority of the 9th Panzer Division arrived at the bridges, secured them against the south, and moved on towards Dordrecht. The Division reached the area south of Rotterdam sometime during the night of 13/14 May.

The situation was saved.

By dint of joint Army-Luftwaffe operations, the tactical situation around Dordrecht and south of Rotterdam was restored.

Quite properly, the 7th Air Division -- the "Air Landing Corps" had ceased to exist some days ago for all practical purposes -- was made subordinate to the 9th Panzer Division for the following joint ground operations.

VI. ~~Rotterdam is Bombed~~

The mission assigned to the 9th Panzer Division, to which not only the 7th Air Division but also the newly arrived "SS-Leibstandarte Adolf Hitler" had been made subordinate, was to push on through Rotterdam on 14 May and then to continue its main advance towards Utrecht, while diverting a smaller force to The Hague.

The first step in the accomplishment of this mission was to take the city of Rotterdam, which was defended by infantry troops posted in the houses along the northern bank of the Nieu Maas and by a numerically superior and heavily armed Dutch Army force, by storm. The majority of Rotterdam's citizens had been evacuated, and the center of the city had been declared a fortress.

The attack was to begin on 14 May, at 1530. The Army, in the person of the newly arrived commanding general of the XXXIX Corps, General-

leutnant Schmidt, was in charge of the operation. After conferring with him, General Student transmitted from his command post a radio message to the Second Air Fleet headquarters, requesting support and fire preparation for the contemplated assault from the units of the Special Duty General. The air attack was slated to begin at 1445.

Before this time, one more attempt was made by an intermediary to persuade the Rotterdam garrison to surrender the city peaceably. Negotiations were delayed for a number of different reasons.

During the interim, the 54th Bomber Wing (approximately 100 aircraft), which had been assigned to carry out the softening attack and which had been made subordinate to the Special Duty General for the duration of this mission, was getting ready to take off from its airfields in the Bremen-Münster area. Before the take-off, the Wing staff was given detailed instructions to the effect that capitulation negotiations were still in progress and that therefore the Wing must be able to be reached by radio until the very last minute. As an added precaution, the pilots were to watch for red signal flares as they approached the city, for these would mean that Rotterdam was not to be bombarded. These precautions seemed adequate to ensure the avoidance of a no longer necessary attack even at the last minute.

Following its orders to the letter, the Wing took off on schedule for Rotterdam.

What was happening on the ground in the meantime, the course of the surrender negotiations, the deploying of ground forces for the attack, the desperate attempts to reach the 54th Bomber Wing in time once the city had capitulated, and the partial accomplishment of the bomber mission -- all of this has been described in such great detail by competent authorities that there is no need of our repeating it here[21].

The actual result of the air attack on Rotterdam was not the capitulation of the city -- for this had already been achieved by negotiation -- but rather the capitulation of the Dutch Army which followed on its heels.

The superfluous air attack on Rotterdam interjected a false note into the victorious, and hitherto fairly conducted battles for Fortress Holland. The destruction of the center of Rotterdam was a tragedy, because it was not necessary.

It was inevitable that the destruction of the core of Rotterdam should provide the enemy with a motivation for hate-filled accusations of Germany's barbaric love of destruction. First "Warsaw"*

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21 - There are two sources which are considered authoritative in their detailed description of these events: 1) Kesselring's book, and 2) the study by Pissin (see footnote 3). The author of the present study has questioned carefully the individuals concerned in the incident, above all the former commander of the 54th Bomber Wing, the Special Duty General, and his chief. The results are contained in Pissin's study, to which the reader is referred for further details.

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and then "Rotterdam"!? Such accusations were to be expected in view of the psychological atmosphere provoked by the war as well as for reasons of war propaganda. To a certain extent, they are even alive today[22].

For this reason, within the framework of this study it seems necessary to underline those aspects of international law which must be considered by any military man in his evaluation of the "Rotterdam affair".

However, before we begin this discussion, there is a question which must be asked: why did the Allies never bring forward a legally-founded accusation because of Rotterdam after the war? Why was no one penalized on the strength of his participation in this affair? Rotterdam figured neither in the war criminal proceedings against Feldmarschall Kesselring nor in those against Goering; nor was any accusation brought forward against General Student, the Luftwaffe representative responsible for operations in Holland. All three of these men might well have been accused of being "responsible" for what happened.

The answer to these questions is provided by the names of countless German cities which were bombed by the Allies without any military justification whatsoever in attacks which resulted in terrifically high losses

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22 - This statement is substantiated by the "Kommentaren der USAF zur Studie 152" (Commentary on Study No. 152 by the USAF), dated July 1956 (Karlsruhe Document Collection), in which it is requested that this study delve into such aspects as "the reasons behind the decision for mass destruction (specifically in the case of Rotterdam)."

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among the civilian population, attacks which can be described by no other term than mass destruction. Let one name suffice for the rest -- Dresden!

As regards the "Rotterdam affair", the situation was clearly as follows: The center of the city was defended by military forces -- completely pointlessly under the prevailing circumstances. In other words, the Dutch Army had turned an open city into a defended fortress[23].

Up to that point it was perfectly clear under international law that a defended city had to accept the consequences of such defense, in other words it had to expect that it would be subjected to softening artillery attacks designed to prepare it to be taken by storm. A glance at the map of Rotterdam north and south of the Maas, however, makes it clear that artillery forces could not possibly achieve the requisite degree of effectiveness. In the air age, it was obvious that in a situation of this kind the vertical artillery, i.e. the bombers, were bound to be employed.

That this vertical artillery was not employed in order to destroy the city's civilian population, but in accordance with purely tactical requirements in an attempt to eliminate the Dutch ground defenses, is substantiated in full by the target maps contained in the two sources mentioned[24]. As a matter of fact, the aircraft of the 54th Bomber Wing turned in a very exact performance. The fact that the effects of the attack spread over

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23 - See Dr. Spetzler's monograph, prepared from the point of view of military law, in Appendix 44.

24 - Kesselring, op. cit., page 76. The target map is included in this study as Appendix 45.

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large sections of the city was due not to the poor aim of the German bomber pilots but to the inability of the Dutch garrison and the civil authorities to limit the fires caused by the bombardment.

There remains the reproach that the air attack was carried out while capitulation negotiations were in progress and even after they had been concluded. In this case it is not "evil human intentions" which are to blame, but rather "technological deficiency". The descriptions contained in the two sources, as well as the information obtained by the author of the present study during interviews with the persons concerned, prove beyond any doubt that German leaders did everything in their power to stop the air attack after the aircraft had already taken off. That their efforts failed must be attributed to chronological factors, technological deficiency, and poor visibility at the target area[25].

The fate of Rotterdam was subject to the unpredictable vagaries of any war. The attempt to assign the "responsibility" for it to any individual or group of individuals can be based only on lack of knowledge of the prevailing circumstances.

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25 - The "Rotterdam affair" is a thoroughly typical example of the effects of these factors. In its target approach on Rotterdam, the 54th Bomber Wing had ordered its aircraft to retract their trailing antennas -- in accordance with standard procedure. As a result, the first squadrons were not in contact with the ground radio and -- released their bombs. The following squadrons still had their antennas in action and were thus able to catch the countermand of the original order and to change their course in time. It was a matter of a fraction of a second. Visibility for the two waves was quite different; the first squadrons were prevented by smoke and dust from spotting the signal flares, while the second wave was able to make them out.

Perhaps it would have been propitious if the Germans themselves had instituted "court martial" proceedings against the allegedly "guilty parties" in May 1940 once they recognized the furor, fanned by propaganda, which was spreading abroad! However, at that time the findings of such a court would have convinced neither the enemy nor the world public. For the world was at war!

It is to be hoped that some future historian may weigh justly the problems of guilt and fate, unhampered by anger or resentment, in order to arrive at the truth.

VII. Command

The success or failure of a tactical undertaking such as a large-scale operation can make or break the reputation of the military commander in charge. And this is quite as it should be. The transition from "hurrah" to "lynch him" often hangs by a single thread.

Success alone is decisive. And it was natural that the tangible strategic success of the air landing operation should far outshine the tactical failures which marked the course of the operation. For three whole days, the success of the action hung by a thread -- and a very thin thread at that.

It is the mission of historical evaluation to describe mistakes frankly, in order to prevent their recurrence -- insofar as the present world

is willing to learn from history.

In this particular case, however, our criticism does not affect the commander of the overall undertaking, Generaloberst Student, personally; in view of the conditions under which he had to operate, Student prepared and accomplished the air landing operation as best he could. Our criticism is directed rather at the system of command in effect at that time, a system born of a number of different currents of thought and influence.

In Section 3, I, of this Chapter, the examination of the "chain of command and organization of forces"[26] has already given rise (ot) critical remarks which -- at that point -- were based only on the theoretical structure of the command organization.

But the practical execution of the air landing operation exceeded by far the reservations expressed in that criticism.

It cannot be denied that, in the actual accomplishment of the operation, neither genuine tactical thinking nor strategic planning played any real part.

It is true that the body of experience gained from the employment of paratrooper and air landing units during the previous course of the war was relatively small; nevertheless, this employment had brought a certain amount of theoretical knowledge. Above all it should have led to clear recognition of the fact that a tight concentration of all the elements participating in an air landing operation under a single, unified command was a sine qua non for its success.

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26 - See Appendix 42.

However, as is indicated by the chain of command in effect on 10 May 1940, this requirement was not given requisite consideration.

The identification of commanding general and division commander in one person -- and this in a situation in which neither command post was adequately equipped with signal communications facilities for the transmission of orders -- resulted in the elimination of the commanding general as such on the very first day. Consequently, in his remaining capacity as division commander, his influence was limited to the tactical units operating in the area whose activity he could follow personally, in other words in an area in which he himself might be commanding a number of battalions. But this was not really his mission.

Ideally the commanding general should have had his command post in the rear, so that he could direct the operations of his two air landing divisions at long range, while directing the employment of his flying units, both "air assault" and "air cover" units, at short range, depending upon the developments in the air and ground situation.

Once the ground situation in the enemy territory had been clarified, then would have been the time to move the command post responsible for overall operational orders forward into the operational area.

But in any event, one prerequisite for effective command both at long and at short range is adequate communications facilities (in this case, radio and aircraft), not only for the command element (the corps) but also for the fighting

troops (divisions). The obvious lack of a communications system capable of functioning smoothly under all conditions meant that the air landing operation had to get along without a unified and tightly-knit command from the very beginning.

If the commanding general was to be responsible for directing the early stages of the operation from the rear, then it was all the more important that the 7th Air Division, out in front, should have had its own commander and operations staff.

If, however, the commanding general should decide to direct operations from the advance position -- as was the case in Holland -- then an energetic deputy, armed with adequate authority, was urgently needed in the rear in order to regulate the employment of the air assault units and air cover units in accordance with the plans and directions of the commanding general and, above all, to schedule the commitment of the air transport units in bringing up troops and supplies.

Not a single one of these requirements was met by the command system actually used. Nor was there any way in which their lack could be compensated for by improvisation.

It is easily understandable from both the human and military points of view that General Student should have wished to take over the tactical command at the "front" -- which he carried out with exemplary personal initiative. But the result was that, by so doing, he eliminated himself as strategic commander of the operation[27].

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27 - The author's views in this connection are substantiated, though somewhat more cautiously, by Feldmarschall Kesselring (op. cit., page 72), at that time commander in chief of the Second Air Fleet.

A further inevitable result was that the Second Air Fleet, as superior headquarters, was forced to intervene more and more in the detailed conduct of the air landing operation, without being adequately oriented on the detailed developments at the scene of action and without always being in a position to intervene effectively. By the time the Second Air Fleet intervened in the "Rotterdam affair", it was already too late.

Reviewing the situation critically, one comes to the conclusion that the command system broke down in the case of the air landing in Holland, not because of personal inadequacy but because of the obvious defects in the command organization itself.

It has proved to be one of the prerequisites for the proper conduct of an air landing operation that the officer in charge be familiar with the methods of employment of both the armed forces branches involved. This prerequisite was fully met in the case of General Student.

In the lower echelons, however, this was not always the case! The 7th Air Division (including the Army's 16th Infantry Regiment) had become accustomed to working with the active air transport units of the Luftwaffe, and the coordination between these two elements functioned smoothly.

In the case of the Army's 22d Infantry Division (Air Landing), the situation was considerably less favorable; the regiments of this Division had not been given adequate training or practice to fit them for their role as an air landing force. And the 2d Special Duty Bomber Wing, assigned to provide air transport services for the 22d Infantry Division, had

had just as little training and practice. The Special Duty Wing was made up of aircraft and crews recruited at the last minute from the pilot training schools and the Lufthansa. It had had no practice whatsoever designed to fit it for its mission, and was entirely without any point of contact with its "passengers". No matter how efficient and experienced the commanders and the pilots of the Wing were, and how ready for action and well-prepared for tactical ground operations the Army's air landing units were, the difference between the results achieved by the 7th Air Division and those achieved by the 22d Infantry Division (Air Landing) was undoubtedly due in great part to the fact that the two divisions were fundamentally different in respect to their previous training and experience.

And this in turn implies the requirement that the air transport units and the ground operation units to be transported must represent a single entity, an entity which can develop only as a result of long coordination. Moreover, experience has shown that the air transport units must be made subordinate to the tactical commander of the ground operation for the duration of their joint action.

This presupposes that the tactical commanders of the ground operation must be so well trained in "air force matters" that they are thoroughly familiar with the conditions governing the employment of flying units, even when the latter are participating in an air transport action only.

As we have indicated, these prerequisites were met in the case of General Student; in the case of the commander of the 22d Infantry Division -- through no fault of his own, they were not.

Our criticism so far has been directed against the command system and has been restricted to the organizational and functional defects which influenced the preparation and accomplishment of the air landing operation. Any attempt to investigate tactical errors would go far beyond the bounds of this study.

Nevertheless, as has already been stated -- success is decisive. And in spite of all the defects in tactical leadership, a strategic success was achieved. This was due less to effective leadership than to the fighting troops themselves, who demonstrated a high degree of courage and indomitable ingenuity in on-the-spot improvisation. Their behavior is all the more admirable in view of the fact that only a fraction of the force originally slated for employment actually arrived in the area of operation.

But apart from this, the basic premise of all effective leadership is the ~~eff~~ smooth functioning of the technical, i.e. signal communications, channels of command. In this respect, too, as we have mentioned before, the difference in the equipment and training of the two divisions resulted in a situation in which the 22d Infantry Division was at a disadvantage.

It is one last prerequisite for effective conduct of the operation that the preliminary reconnsiasance of potential air landing areas must be so accurate that flight mishaps due to purely technical factors are -- to all intents and purposes -- eliminated entirely. The 7th Air Division had at its disposal a thoroughly suitable landing area (Waalhaven), despite the fact that enemy interference had to be anticipated. The 22d Infantry Division, on the other hand, was distributed over three separate landing points, all of which were to prove totally unsuitable as landing fields for large and heavily laden aircraft.

In this case, however, the blame cannot be placed upon the troop-level commanders, but must be assigned to the top-level command responsible for the long-range preparation of an operation on such large scale. There can be no doubt that the top-level command was guilty of sins of both omission as well as commission. On the other hand, sins of this type can never be omitted entirely since so many of the factors determining the selection of a landing field are subject to variation -- ease of approach, which often varies depending upon the season of the year; the vegetation surrounding the area; weather conditions; and -- last but not least -- the activity of local enemy forces.

VIII. ~~The Significance of the Initial Success for the Overall Operation~~

The factors leading to the decision to capture Holland have already been discussed elsewhere. In summary: either Holland would become an advance Continental base for Great Britian's conduct of operations, in which case it would represent a grave threat to the highly vulnerable Ruhr District, Germany's vital nerve; or Holland would be integrated into the German operational camp, in which case it would provide not only a shield for the Ruhr District but also a base from which Germany could carry the air offensive to the British Isles and, attacking from the northern flank, to France.

Germany's military leaders chose the second of these two alternatives. The only problem which remained to be solved was just how the Dutch fortress could and should be taken most rapidly and held most firmly.

A purely Army operation designed to capture and occupy Holland, whose terrain was particularly favorable for defensive operations, would have required a great deal of time and considerably stronger forces than were at the disposal of the relatively weak German Eighteenth Army. A frontal attack against a numerically superior enemy could not have been avoided. The gain in time would have favored the other side; a unified air and ground front stretching from the Zuyder Zee to the Maginot Line would have been comparatively easy to stabilize and hold.

The air landing operation, on the other hand, succeeded within three decisive days in capturing Fortress Holland from within, in tying down a very strong enemy force inside Holland, and in drawing off additional enemy forces from the French-Belgian assembly and operations area. Moreover, the surprise and shock which it caused had a decisively detrimental effect on the fighting morale of all the Western powers. Lastly, it brought the vitally important north-south communications lines firmly into German hands. In summary, the air landing action achieved the following results:

1) It was the air landing operation which made it possible for the German right offensive wing, the Eighteenth Army, to emerge victorious in ground operations against a numerically superior enemy force in an unexpectedly short time.

2) The shock to enemy morale, coupled with the military success of the air landing operation, paralyzed the will to resist of the Dutch Army. Its capitulation, which meant the elimination of a strong fighting force from the Allied camp, was a direct result of the German landing. An entire German army was freed for operations elsewhere.

3) The air landing action created the prerequisites for further Army operations, in that it made possible the planning and execution of the large-scale encirclement maneuver which led to the battles of Flanders and Artois.

4) The capture of the decisive north-south communications routes (the bridges at Moerdijk, Dordrecht, and Rotterdam) not only made

these operations possible, but also secured a route for the vitally important transport of supplies via Holland to the front lines in Belgium and northern France.

5) As a result of the air landing action, Holland's well-equipped network of airfields (it was only within Fortress Holland itself that this network was rather thin) was at the disposal of the German Luftwaffe. This was important not only for the later air offensive against England, which had been planned from the very beginning, but also for the more immediate air support of the decision-seeking offensive against France, soon to be launched.

Without doubt, success of such far-reaching strategic scope as this justified the employment of a valuable and unique "surprise weapon". The results achieved even justified the heavy losses in personnel and materiel. It must not be forgotten, however, that the loss in air transport capacity made itself felt for years afterwards.

4. ~~The Air Landing Operation Against Fort Eben Emael and the Bridges over the Albert Canal Facing the Position of the German Sixth Army~~[28]

This special operation had no tactical connection whatsoever with the air landing in Fortress Holland. Nevertheless, the two undertakings supplemented one another in the achievement of a common strategic goal[29].

If the German Sixth Army should be unable to force a rapid breakthrough through the Belgian border fortifications line between Maastricht and Fort Eben Emael, a terrain which was extremely difficult to take due to the fact that it was so well suited to defensive operations, then it would be unable to penetrate quickly enough into the depths of the Belgian operational area to contain the strong Belgian force already deployed there.

In turn, if the Sixth Army failed to achieve this first mission -- or managed to achieve it only after some delay, then the advance of the Eighteenth Army into Fortress Holland would be placed in jeopardy. This would mean the isolation of the air landing operation, since there would be no possibility of its being relieved in time. In other words, it would have to be completely abandoned. And the Belgian Army, reinforced in the meantime by the Anglo-French armies from the Allied left wing, would have gained the freedom to operate. The potential effects of a development of this kind

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28 - In order to understand the material in this section, the reader should have a map of the Maastricht-Liege area at hand. No special map has been included in this study. For further details, the reader is referred to the maps contained in the special study by Pissin.

29 - See the map in Appendix 43.

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on the course of the German breakthrough operation in the middle defied contemplation.

It was to be the mission of the air landing operation, which was launched directly opposite the front of the Sixth Army, to smooth the way, in other words to enable the Sixth Army to bring a strong force to bear in a rapid breakthrough through the natural and man-made border fortifications.

As we have seen in Section 2 of this Chapter, this subordinate plan had been a part of the overall planning for an air landing operation from the very beginning, and it was not affected by the many subsequent changes made in the overall plan. As a result, detailed preparation of the Eben Emael action could be carried out on a long-range basis. The initial success of this operation, too, was based on the surprise factor, coupled with the employment of a completely new combat instrument -- the freight gliders as a transport fleet, and the "hollow charge" as an offensive weapon.

Here, again, we must refer to the special study on the employment of air landing forces[30] for an evaluation of the preparation, execution, and success of the operation. The special study contains detailed information on the tactical and technological aspects of the action, and there is no need to repeat this information within the framework of the present study. Our task here will be to present a brief summary of its effects.

Utilizing a force made up of fourteen infantry and two Panzer divisions, the Sixth Army was to break through on both sides of Maastricht in order to create the impression

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30 - See the introduction to this study, footnote 3.

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that a point of main effort on the Western front was being developed. Everything depended upon the achievement of a rapid success.

The most serious obstacle to such rapid success was Fort Eben Emael, which flanked the entire assembly area of the Belgian forces and which represented the most modern point along the whole Belgian border fortifications line. The Fort lay only a few miles south of the Dutch city of Maastricht, high above the Albert Canal, which -- both at this point and further north -- flowed through a deep-cut channel and thus represented a difficult man-made obstacle.

It was the task of the air landing operation to eliminate both of these obstacles in one surprise blow.

This surprise blow was to be accomplished by the Luftwaffe. The text of its mission was short and clear: "Capture of the bridges over the Albert Canal at Veldewezelt, Vroenhofen, and Canne, and the elimination of Fort Eben Emael as a combat factor."

The commander of the Air Landing Corps, General Student, who had been placed in charge of the preparation and coordination of both air landing operations, was able to spare only 500 troops from his paratrooper units for the Eben Emael undertaking. Given the designation Assault Detachment Koch (Sturmabteilung Koch), this group was tactically, i.e. operationally subordinate to General von Richthofen's VIII Air Corps, whose task it was to support the operations of the Sixth Army.

If the traditional system of transporting paratroopers to their target, i.e. by means of engine-propelled aircraft, were used, there would be the

danger that the Belgian bridge sentries near the border might be alarmed in time to blow up the bridges and that the garrison at Fort Eben Emael might have time to prepare its defenses and thus be in a position to intervene in the operation. For this reason, Luftwaffe leaders had decided to utilize noiseless freight gliders as the means of transport. After being towed for a short distance, they could be released just before the border, to continue their gliding flight to the target area, noiselessly and -- under cover of darkness or dusk -- also invisibly.

Thanks to the months of careful work in which the action was rehearsed in all its details, it succeeded in nearly all respects.

The bridges at Veldewezelt and Vroenhofen fell into the hands of the paratrooper force completely undamaged; during the course of the battle to capture those at Canne, however, the Belgians managed to blow them up.

Fort Eben Emael was seized from the air by the assault group Witzig (Sturmgruppe Witzig), which consisted of only eighty-three men, and by dint of heavy fighting, the assault group was able to hold the surface installations of the Fort. The new hollow charge explosive ammunition succeeded in eliminating the gun towers and observation posts of the Fort from without. Early in the morning on 11 May, the paratroopers were relieved -- in a situation which had become critical in the meantime -- by advance Army elements. The 1,200 troops which made up the garrison of the Fort, after having been held at bay for twenty-four hours by eighty German paratroopers, surrendered.

By means of almost ideally coordinated operations by the Army and the Luftwaffe -- the attacks carried out by the VIII Air Corps made a valuable contribution to the success of the undertaking -- Fort Eben Emael, hewn out of natural rock and hitherto considered unassailable, had been taken; it no longer represented a threat to the advance of the Sixth Army over the two captured bridges lying to the north of it.

The divisions of the Sixth Army were able to penetrate into the depths of the Belgian operational area, and the southern flank of the Eighteenth Army was secured, so that the 9th Panzer Division could advance to relieve the Air Landing Corps. In addition, the northern flank of Army Group A was secured against attack from the north, so that it could proceed with its decision-seeking operations.

The conditions required for the success of the air landing operation in Fortress Holland and of the operation as a whole had been created.

~~Postscript and Supplement~~

The author had just completed the chapter dealing with "air landing operations within the framework of Operation YELLOW" when he came across certain documents whoch seem to be so significant for the subject under discussion as to warrant, in fact even to necessitate, a postscript and thus a supplement to the chapter.

This new information has been organized into the following sectors, so that it can be readily integrated into the original text:

1) ~~The Strategic Necessity of Occupying Holland from the Point of~~ View of the Air War

At the beginning of Chapter V, Part I, of this study on the offensive in the West, in the section dealing with the "defensive attitude towards offensive planning in October 1939", we have already emphasized how decisive the viewpoints of air strategy were in connection with the final decision for an offensive in the West.

Both defensive aspects (the defense of the Ruhr District) and offensive aspects (the creation of a base for the conduct of the air offensive against England) contributed to the necessity for an air war carried out in accordance with the principles of air strategy. The capture of Holland by the Army was a prerequisite for the achievement of both the goals mentioned above. At the beginning of the last Chapter, we discussed briefly the offensive aspects which made the occupation of Holland appear necessary.

Quite unexpectedly, the thinking of the author has now been substantiated by the Führer Decision contained in a letter dating from October 1939 from the Wehrmacht High Command to the High Commands of all three service branches[31].

During the first phase of preparation for Operation YELLOW, the Army High Command apparently expressed certain reservations with respect to the inclusion of Holland in the overall operation. (The text of the Army communication to the Wehrmacht High Command is not available.) Decisive in the attitude adopted by the Wehrmacht High Command is the fact that the occupation of Holland was determined to be necessary "exclusively from the point of view of air strategy, although both the Army and the Navy are not uninterested in the gain in enemy territory thereby represented".

2) ~~The Planning for the Employment of Air Landing Forces in the West~~

The planning for the employment of air landing forces in the West has been discussed in Section 2 of this Chapter; the reader is also referred to the map contained in Appendix 41, "A schematic plan of the air landing operations carried out within the framework of the offensive in the West".

On the basis of the new information which has come to light, our discussion can be expended to include a new idea evolved by Hitler. The Führer Decision mentioned above contained instructions to the effect that Luftwaffe leaders should investigate the possibility of an air landing on the island of Walcheren, with a view to seizing the harbor of Vlissingen during the first day of

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31 - See Appendix 46.

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the offensive. Hitler's instructions provided for an alternative, i.e. whether to accept this definitely defined offensive target or some other target (to be suggested, together with the plan for its capture). The alternate target was to be "some other island in southern Holland which would offer an especially valuable base for the conduct of German naval or air operations".

We have no information regarding the reaction of the Commander in Chief of the Luftwaffe to this suggestion. Presumably it was negative, since there were no preparations made for such an undertaking.

In connection with the orders issued by the Wehrmacht High Command[32], it is interesting to note that they mention all the various plans for air landing operations which have been discussed in this Chapter, i.e. "G" (=Ghent), "Dinant", and "Sedan".

Thus, at this stage of the planning, all four possibilities were taken into consideration, the other three, however, only in the event that the Ghent action should prove to be impracticable for any one of the reasons mentioned under Paragraph 1 of the Wehrmacht High Command order. At that time, the Ghent operation was still very much in the foreground; nevertheless, the other three plans -- which were to occupy the foreground in turn prior to the final decision on 10 January 1940 -- were already fairly clear in their basic outlines.

It seems rather remarkable that an air landing in Holland should have been considered as a possibility at this early date at all. The air landing in Fortress Holland, of course, did not enter the picture until after 10 January 1940, at which time preparations for it were begun.

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32 - See Appendix 47.

As regards the reasons behind the selection of the island of Walcheren, which -- stretching from east to west -- lies about 137 miles west of the Rhine and is Holland's westernmost point, the choice would seem to have been determined not so much by overall strategic factors as by the thought that it would be valuable for locally-centered tactical operations. It is difficult to see how this might have been the case as far as Army operations were concerned; as regards the Luftwaffe and the Navy, it is conceivable that the island might have offered a useful base of operations for sometime in the future. On the other hand, the idea may have been based on nothing more than the desire to prevent the British from taking the island and utilizing its harbor.

All in all, it seems to be rather Utopian to expect the 7th Air Division to leap into the breach on the first day of the offensive as one of the "possible substitute operations for the Ghent action", namely in the event that the Sixth Army should fail in its breakthrough attempt north of Liege. Under these circumstances, it might be a matter of hours before the officers in charge of the operation could arrive at an accurate evaluation of its prospects of success and, in the event of an adverse evaluation, develop a new plan. Additional time would elapse before the necessary orders could be given, even if a time-saving code had been previously prepared. Thus there was a very real danger that the alternate operation might get off to a very late start (it must be remembered that it was winter and that visibility was good only until 1700 at the latest!), even if the troops involved

were carefully prepared for the potential necessity of carrying out one of the alternate operations.

3) ~~Rotterdam is Bombed~~

This is the title of Section 3, VI of this Chapter, in which the author presented his own evaluation of the "Rotterdam affair" from the point of view of the military man.

We are now in a position to supplement this by the point of view of the legal expert (Dr. Eberhard Spetzler), which appeared in the form of an article in the August 1956 number of the "Wehrwissenschaftliche Rundschau" (Military Science Survey) under the title "Der Weg zur Luftschlacht um England in kriegsrechtlicher Bedeutung" (The Aspects of Military Law Pertaining to Germany's Preparations for the Battle of Britain)[33].

Dr. Spetzler's description of military events conforms substantially with that given by the author in this Chapter. The minor points in which the two accounts differ (as, for example, the strength of the assault force) are in any case irrelevant to an evaluation of the affair as a whole.

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33 - See Appendix 44.

CHAPTER V

The Employment of the Close-Support Units of the VIII Air Corps[1]

As had also been the case during the campaign in Poland in 1939, the direct support of Army operations by means of intervention from the air was, from the very beginning, one of the primary missions of the strategic air war in the West. And this mission became progressively more important as the Luftwaffe managed to seize and to maintain air superiority, to begin with, and finally air supremacy. Once this goal had been achieved -- and as a matter of fact it was achieved by the close of the fifth day of operations -- then both direct and indirect support of ground operations became the most urgent mission of all the Luftwaffe units involved in the strategic air war.

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1 - The material in this Chapter is based primarily on two reports by former members of the staff of the VIII Air Corps: 1) "VIII. Fliegerkorps im Frankreichfeldzug" (The VIII Air Corps and the Campaign in France), compiled by Colonel a.D. Hans Wilhelm Deichmann (then adjutant attached to the Headquarters, VIII Air Corps) on the basis of fragments from the War Diary of the Headquarters, III Air Corps+ and the notes of the Commanding General, General Dr. Ing. Freiherr von Richthofen; and 2) "Das VIII Fliegerkorps im Westfeldzug 1940" (The VIII Air Corps in the Campaign in the West, 1940), 26 April 1953, a report by General der Flieger a.D. Seidemann, former Chief of the General Staff of the VIII Air Corps. Both sources are contained in the Karlsruhe Document Collection. Deichmann's report would seem to be the more reliable of the two since it is based in part on original documents. Whenever the two accounts differ on significant points, this is noted in the text of the present study.

+ - Translator's Note: Shouldn't this be VIII Air Corps instead of III Air Corps?

There was one exception to this general rule. From the very first day of operations on, the VIII Air Corps (the Luftwaffe's only close-support corps) was assigned exclusively to the direct support of Army ground operations -- as had been the case in Poland as well. The map contained in Appendix 38 indicates its initial operational area and outlines its first missions.

For the reasons listed below, the account of the employment of the VIII Air Corps can well be abstracted from the account of the employment of the Luftwaffe as a whole and deserves to be examined separately in a special chapter.

1) The mission of the VIII Air Corps remained fundamentally the same throughout the entire course of the offensive.

2) In accordance with its targets, the VIII Air Corps was consistently employed "far to the rear", i.e. just short of the German front line.

3) The take-off fields utilized by the VIII Air Corps were relatively "up front", in comparison with the ground organization serving the strategic air arm.

4) The VIII Air Corps was employed in operations closely coordinated with the command headquarters of the Army units involved; they had almost no connection with the goals of the strategic air arm.

The extremely valuable part played by the VIII Air Corps in Poland, where it was under the command of the Special Duty Air Commander (Fliegerführer z.b.V.) and subordinate to the Fourth Air Fleet in the southern area of operations,

has been described in detail in the study "Der Polenfeldzug 1939" (The Campaign in Poland, 1939).

The VIII Air Corps was deployed in the West in nearly the same form which it had had at the end of the campaign in Poland under the Special Duty Air Commander. For its first missions within the framework of the offensive in the West, it was assigned to airfields in the Duisburg-München-Gladbach-Düren-Cologne-Düsseldorf-Mülheim area.

Appendix 48 shows the organization of the VIII Air Corps as of 10 May 1940[2], and also indicates the take-off fields assigned for the early missions and the operational strength of the participating units. The Corps had at its disposal approximately 450 combat aircraft (not including reconnaissance and transport aircraft).

Despite the undeniable effectiveness of the system used in the campaign in Poland (the grouping of the real close-support units -- dive-bomber, ground-support, and single-engine fighter units -- into a single organizational entity with unified command in the person of a single "close-support commander" (Nahkampfführer)), a glance at the organizational structure of the Corps as of 10 May reveals that the improvements indicated as desirable during the Polish campaign had not been put into effect for the offensive in the West. The number of dive-bomber units had been increased only slightly in the interim; and the single ground-support group, which had rendered such exemplary service in Poland, was still the only one of its kind! Moreover, the composition of the units, in point of number and type of aircraft, remained unchanged.

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2 - The "Special Duty Air Commander" of the Polish campaign had been redesignated the "8th Air Division" on 1 October 1939 and reorganized into the VIII Air Corps on 10 October 1939. Since 20 October 1939 it had been subordinate to the Second Air Fleet.

We can do no more than cite this fact. It seems all the more incomprehensible in view of the fact that Luftwaffe leaders had decided to repeat the "secret of success" applied in Poland -- namely the provision of intensive air support for Army operations in an area of main effort. There is no information available which might serve to explain why the office of the Commander in Chief of the Luftwaffe neglected to strengthen the organization of the close-support units. It is equally unclear why a long-range bomber wing (the 77th Bomber Wing) should have been made a part of the close-support force. One can only surmise that this may have been a holdover from the campaign in Poland, thus sanctioned by custom, or that it may have been the result of the well-known tendency of the Commanding General to conduct his own private war[3].

From the point of view of training, however, the experiences gained during the campaign in Poland had been applied fully during the intervening months. The units of the VIII Air Corps, still equipped with the same aircraft models as they had used in Poland, had been permitted to remain at their home airfields for refresher training from the time of their transfer to the West until the beginning of November. This represented a great advantage over the majority of the Luftwaffe's active flying units, which were granted far less time for training activity in between assignments.

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3 - As a matter of fact, the superior command fell back on this bomber wing repeatedly, withdrawing it from the VIII Air Corps and committing it in long-range bomber missions. The first occasion was on the second day of the offensive, when the 77th Bomber Wing was made subordinate to the IV Air Corps.

Thus the units of the VIII Air Corps had been brought to the highest possible level of operational readiness in terms of tactics, personnel, and training. Above all, their future coordinated operations with large armored units had been covered thoroughly, both in theoretical discussions and in practical rehearsals.

Nevertheless (and this was true of the entire Luftwaffe), each individual mission was disturbed, and indeed jeopardized, by the necessity for maintaining constant operational readiness. The constant changes in the preliminary preparations to be made for each mission, in the chain of command, and in the almost daily alterations in original plans; the constant requisitioning of personnel and materiel for new unit activations -- all of these "interventions from above" served to keep both officers and troops in a state of permanent uneasiness[4].

As a result of the experience gained during the campaign in Poland, certain technical innovations had been introduced. The dive-bombers (Ju-87) had been fitted with so-called whistling propellers, installed along the wings or on the undercarriage, which emitted a howling noise when the aircraft was in dive. In addition, the bombs themselves were fitted with automatically functioning "whistles" (Heulpfeifen). Luftwaffe leaders assumed -- and, as it soon turned out, quite accurately -- that these devices would have a strong detrimental effect on the morale of the ground troops under attack. For the bombardment of stationary targets such as bunkers, fortifications, warships, etc., 2,250-lb. bombs with armor-piercing head and supplemental rocket propulsion had been devised

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4 - The reader is referred to Chapter I, A Preface to the Campaign in the West.

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for pin-point bombardment by the dive-bombers.

Practice maneuvers had been held with the Army, with the so-called Test Section (Versuchsabteilung) at Friedrichshafen as well as with the Antiaircraft Artillery Battalion Aldinger. Most important, the air landing actions against Fort Eben Emael and against the bridges over the Albert Canal had been rehearsed repeatedly, both theoretically -- at the sand-table -- and practically -- at a troop maneuver area. In both cases, the conditions at the actual target had been imitated exactly and in detail.

The signal communications and reporting systems had been tested again and again in every detail. Moreover, communications units (Nachr.Verbindungstrupps) had been organized and equipped with the most modern radio telephone devices, in order to guarantee smooth coordination between the Air Corps and the ground forces.

In order to round out this brief summary of the period of preparation for the undertaking, we must add a few words concerning the coordination with the Army during this period.

The success achieved by the Luftwaffe in the campaign in Poland, and later in Norway, had earned full recognition from the Army and, in some quarters anyway, even its gratitude. And now the Army expected something special in the way of decisive Luftwaffe support for its operations in the West. In contrast to the attitude prevailing during the campaign in Poland, the Army's readiness to participate in joint operations had become, on the whole, much greater.

But there were still exceptions, and precisely during the preparations of the VIII Air Corps for its mission of supporting the operations of the Sixth Army, there were repeated instances of incomprehensible hesitation, if not reserve and distrust, on the part of the Army to accept the intentions and plans worked out by the Luftwaffe. For example, the Sixth Army maintained an extremely reserved attitude towards the planned air landing directly opposite its front line, and even refused to assume responsibility for providing artillery support for the Luftwaffe battalions which were to be landed from the air. (The Sixth Army's refusal to cooperate in this respect made it necessary for the Luftwaffe to bring up its own artillery unit, i.e. the Antiaircraft Artillery Battalion Aldinger, which was of mixed composition.) "The Sixth Army displayed a rather remarkable lack of interest in this air landing operation".[5]

Attitudes of this kind on the part of the Army made the Luftwaffe's preliminary work very difficult. They were not typical of the entire Army, however. From the very beginning, for example, the VIII Air Corps found understanding and a readiness to cooperate in the Army's armored units, especially the Panzer Group von Kleist (Panzergruppe von Kleist); thus active coordination and joint planning were possible with these units. On the basis of this fundamental attitude, the two forces developed a smooth and harmonious method of coordination in their employment which lasted until the very end of the campaign.

The difference in the attitude of the young armored units and of the rest of the Army towards the Luftwaffe was undoubtedly due primarily to the difference in personality of the officers concerned. In any case, the experience of the VIII Air Corps shows that the qualities inherent in the thinking of Luftwaffe leaders (the tendency towards far-sighted planning, towards thinking in terms of extensive geographic areas, and towards the

daring exploitation of operational chances)

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5 - Seidemann, op. cit.

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were reflected in a similar manner of thinking on the part of the Panzer unit commanders, who had outgrown the earthbound, locally-limited thinking of the traditional Army leaders.

The combat mission of the VIII Air Corps during the early stages of the offensive was clearly delineated: operating along the left wing of Army Group B (and thus, at the same time, along the left wing of the Second Air Fleet), the Corps was to prepare and support the breakthrough action of the Sixth Army through the extremely strong border fortifications between Maastricht and Liege. Within the framework of this overall mission, special emphasis was to be accorded the preparation and execution of the air landing operation directed against Fort Eben Emael and against the bridges over the Albert Canal.

Chapters III and IV have already given us a general idea of just how the VIII Air Corps fulfilled its mission on the first day of the offensive. At that stage of operations, there was no way of telling how long the Corps would still be needed to support the breakthrough action of the Sixth Army and its advance into Belgium.

There is another question which -- for the present at least -- must remain open, namely whether or not the strategic planning of the Commander in Chief of the Luftwaffe had envisioned the early transfer of the Corps into the combat area at the middle of the front (the scene of the main Army action, i.e. the breakthrough operation), which was being held by Army Group A, with the Fourth and Sixteenth Armies and the Panzer Group von Kleist. Actually,

this step would have been thoroughly in keeping with the requirement that a clearly-delineated point of main effort be established along the decisive front -- in this case, "the breakthrough in the center".

In any event, one fact is certain -- that during the first eight days of the offensive, the employment of the VIII Air Corps was subject to constant variation, and that it was very soon given double missions to fulfill, i.e. it was assigned to support the left wing of Army Group B and the right wing of Army Group A, either simultaneously or alternately, without any orders' having been given for a fundamental change in the chain of command or for a modification of the original mission. One is tempted, metaphorically speaking, to equate the employment of the VIII Air Corps during the early stages of the offensive with that of a fire brigade -- it was thrown into action wherever "fire" broke out.

A brief summary of the chronological course of events may help to explain this metaphor; at the same time, it will serve to give us a clear overall schedule of events, which can be used as a frame of reference for the individual missions:

The Missions of the VIII Air Corps

from 10 to 17 May 1940

10 May - the VIII Air Corps supported the breakthrough of the Sixth Army through the border fortification and carried out the planned air landing operation;

11 May - the VIII Air Corps continued in its support of the operations of the Sixth Army, particularly the advance of the Panzer divisions across the Meuse and on towards the west;

(the transfer of the flying units to stations closer to the front was begun)

12 May - the VIII Air Corps continued to support the operations of the Sixth Army (the point of main effort was the operations of the Panzer units in the area of St. Trond - Tirlemont - Gembloux);

(the Commander in Chief, Luftwaffe, issued orders to the effect that preparations were to be made for a mission in the Sedan area, for the duration of which the VIII Air Corps was to be "temporarily subordinate" to the Third Air Fleet)

13 May - during the forenoon the VIII Air Corps was assigned to support the operations of the Sixth Army; during the afternoon, it was assigned to work with the Panzer Group von Kleist -- Army Group A -- in the Sedan area;

(the transfer of the ground organization into the area of operations of the Sixth Army continued)

~~This was the first day of double missions!~~

14 May - the VIII Air Corps continued to participate in the assault being carried out towards the west -- it supported the operations of the Sixth Army opposite the Dyle position and against the fortifications of Liege and -- at the same time -- supported the operations of the Panzer Group von Kleist in the Charleville area to the southwest;

~~This was the second day of double missions!~~

~~15 May~~ - the ground-support units of the VIII Air Corps supported the operations of the Sixth Army in the Gembloux area, while its long-range bomber units carried out attacks in the Sedan area ahead of the advance Panzer units;

~~This was the third day of double missions!~~

~~16 May~~ - the VIII Air Corps continued in its support of the Sixth Army, this time by means of attacks on the enemy's rear-area communications system; at the same time, units from the VIII Air Corps supported the breakthrough action of Army Group A through the Maginot Line (in the Sedan - Charleville area);

~~This was the fourth day of double missions!~~

(the Commander in Chief, Luftwaffe, issued definitive orders to the effect that in future the VIII Air Corps was to support only the operations of the Panzer Group von Kleist);

~~17 May~~ - the VIII Air Corps continued to support the assault action being carried out by the majority of the Sixth Army units (capture of the Dyle position and the last of the Liege fortifications); elements of the VIII Air Corps provided support for the operations of the armored units in the southwest.

~~This was the fifth day of double missions!~~

As soon as its operations on the front of the Sixth Army had been brought to a conclusion, the VIII Air Corps turned the area over to the IV Air Corps. Orders were received for the transfer of the ground organization to the Ardennes, and they were put into effect immediately.

Simultaneously the VIII Air Corps was withdrawn from the area of jurisdiction of the Second Air Fleet and placed under the command of the Third Air Fleet. This represented its definitive transfer from the area of operations of Army Group B to that of Army Group A.

Only by means of a detailed breakdown such as the one given above, can it be shown beyond doubt that the assignment of the VIII Air Corps to double missions on five separate days was bound to lead to confusion in the chain of command and to difficulties in the execution of the command function. The VIII Air Corps was subordinate to two air fleets at the same time, it was working together with two different army groups, and it was providing air support for two different armies operating on entirely different sectors of the front. It is obvious that such a situation cannot be conducive to the establishment of a clearly-defined point of main effort. In addition, there was the danger of thorough confusion in the command function, a danger which might have had serious repercussions on the accomplishment of operations, had it not been for the Commanding General of the VIII Air Corps, whose agility of mind and unhesitating determination made it possible for the Corps to fulfill both its missions successfully. It was also the Commanding General of the Corps who, at a very early stage of operations, began to urge that the action be concentrated exclusively in the southern area of operations; and it was his -- apparently rather violent -- discussion on 16 May with the Commander in Chief, Luftwaffe, and the Chief of the General Staff which brought about the order assigning the VIII Air Corps exclusively to the support of the armored units operating on the decisive sector of the front.

On the basis of this development, we can assume that it was only with reluctance that the Commander in Chief, Luftwaffe, decided on a complete shift of the point of main effort, although, on the other hand, there was nothing new in the idea of committing the VIII Air Corps as a whole at the focal point of ground operations from the very beginning of the offensive. On the contrary, even the early stages of preparation had provided for the employment of the VIII Air Corps to smooth the way for the armored units of the breakthrough army when it came time for them to cross the Meuse. And these preliminary deliberations had already assumed the form of binding agreements reached in discussions between the VIII Air Corps and the Third Air Fleet and between the VIII Air Corps and the II Air Corps. Moreover, plans had already been made for a joint attack by the II and VIII Air Corps against the enemy fortifications along the Meuse in the sector of assault, and the necessary coordination had already been discussed with the Army, specifically with the armored units involved.

Under these circumstances, the new assignment did not come as a surprise to the VIII Air Corps, for on the basis of previous joint planning an agreement had already been reached with the Third Air Fleet and practical preparations were already under way for the transfer of the Corps to the southern area of operations.

Even so, any criticism of the apparently hesitant attitude of the Commander in Chief, Luftwaffe, would seem to be out of place until we have more detailed information available regarding the extent to which he

may have been dependent upon binding instructions from the Wehrmacht High Command or upon certain requirements set by the Commander in Chief, Army.

On the basis of the decision made by the Commander in Chief, Luftwaffe, on 16 May, clarifying the future scope of the employment of the VIII Air Corps, we can now divide its commitment in Operation YELLOW into the following three phases:[6]

~~Phase 1 - 10 to 12 May 1940~~ - support of the operations of the Sixth Army in Belgium

~~Phase 2 - 13 to 17 May 1940~~ - double missions with Army Groups B and A simultaneously

~~Phase 3 - 18 to 28 May 1940~~ - support of the Panzer Group von Kleist (as far as the sea) and intervention in the Battle of Flanders and Artois.

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6 - This breakdown into three phases, as well as the summary of the missions of the VIII Air Corps on which it is based, has been reconstructed from the notes of Colonel a.D. Deichmann. A comparison of these notes with Seidemann's report reveals a slight discrepancy, in that Seidemann mentions no further missions by the VIII Air Corps in support of the operations of the Sixth Army after 15 May, but restricts himself to an account of the missions carried out in coordination with the Panzer Group von Kleist.
The author has deliberately based his account on that of Deichmann, since the latter was prepared on the basis of the War Diary and the notes made at that time by the Commanding General of the VIII Air Corps, while Seide~~Deich~~mann's otherwise excellent and very detailed report was not prepared until 1953 and contains no indication of source documents. The Seide~~Deich~~mann report must be viewed as a personal -- and thus presumably subjectively colored -- account, prepared long after the events described.

~~Phase I - 10 to 12 May 1940 (Support of the Operations of the Sixth Army in Belgium)~~

10 May

During the first day of the offensive, the first and most important mission of the VIII Air Corps was the execution of the air landing operation opposite the front of the Sixth Army and the support of the Sixth Army itself in its crossing of the Meuse between Maastricht and Liege.

As far as the air landing aspects of this mission are concerned, they have already been described in detail in Chapter IV, "The Air Landing Actions within the Framework of Operation YELLOW", which covers the operations against Fort Eben Emael and the bridges over the Albert Canal. Those aspects of the mission which applied to the support of the Sixth Army have been described in Chapter III, "The Launching of the Offensive: The Commitment of the Luftwaffe during the First Day, 10 May 1940".

Consequently, the reader is already aware of the results of these operations: Fort Eben Emael was eliminated as a combat factor; two of the bridges over the Albert Canal were in the hands of the German paratroopers. A constant "air umbrella" had been created to protect the gains of the ground forces against enemy air intervention.

Nevertheless, it may be appropriate, at this point, to round out the picture of the Luftwaffe's role in this air and ground battle by mention of a number of unusual measures taken and results achieved.

As soon as the transport aircraft had dropped their paratroopers and the freight gliders had been released by their tow-aircraft,

to continue their noiseless flight to Fort Eben Emael under cover of dawn, all of the transport aircraft returned to their respective bases to pick up new loads[7]. The Ju-52's picked up a load of 400 paratrooper "dummies", with full equipment. With the dummies on board, the fifty Ju-52's flew back over Maastricht, accompanied by a fighter escort, and released their load ~~load~~ in the area between St. Trond and Tirlemont. The moment of release had been selected in the assumption that, by that time, the Belgian reserves would have received the alarm and would be under way to the scene of action. The planned deception was a complete success; a motorized Belgian force -- allegedly an entire brigade -- which had been assigned to launch a counter-attack against the German paratroopers at the Albert Canal bridgeheads, changed its plan of action midway to its original goal and turned aside to meet the new enemy paratrooper landing. By the time they realized that they had been the victims of a deceptive maneuver, the period of decision had already passed -- they arrived too late at the Albert Canal. During the early hours of the afternoon, the armored units of the Sixth Army arrived at the bridgeheads and relieved the paratroopers. And at that their arrival was a good many hours later than planned, due to the fact that the Dutch had managed, at the last minute, to demolish the bridge over the Meuse at Maastricht.

There is another feature of the operation which seems worthy of special mention -- the so-called Mixed Antiaircraft Artillery Battalion Aldinger (Gemischte Flak-Abteilung Aldinger), operating without any Army-provided cover whatsoever, had taken up its position in enemy territory (east of Maastricht) early on the morning of 10 May, where

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7 - Primarily the airfield at Gymnich, approximately nine miles southwest of Cologne.

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it was engaged in providing artillery support for the paratroopers fighting at the bridges over the Canal. (The Army had refused to furnish artillery support for the air landing action.) Fire control was handled by the paratroopers themselves, by means of radio telephone equipment; special signal units from the 38th Luftwaffe Signal Communications Regiment had been dropped by parachute for this very purpose. This measure also guaranteed a direct contact channel between the front and the Corps command post (at Alsdorf, north of Aix-la-Chapelle), enabling the Corps to maintain direct control of operations, and -- above all -- to order dive-bomber attacks without any loss of time in accordance with the needs of the hard-pressed paratroopers fighting at the bridges.

The employment of the flying units was not restricted to the furnishing of air support for the paratrooper force at the bridgeheads and, by means of repeated dive-bomber attacks on the troops and reserves of the enemy, to the relief of the units fighting at Fort Eben Emael, but also included constant support of the assault units of the Sixth Army.

On 10 May, the dive-bomber groups -- and the ground-support group as well -- flew some eight to ten sorties against enemy troops. Even the air reconnaissance squadron was pressed into service in bombardment missions (and this not only on the first day of operations).[8]

The first mission flown by the 77th Bomber Wing was directed against the Belgian

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8 - Each Do-17 of the air reconnaissance squadron carried ten 110-lb. bombs.

camp at Bourg-Leopold (north of Hasselt), in an attempt to destroy the troops presumably stationed there and thus to achieve at least a delay in in the enemy's ability to ready his forces for action. In addition, the Wing carried out attacks on the Belgian airfields at Tirlemont, Diest, and Nivelles and succeeded in destroying a good many enemy aircraft on the ground.

During the first day of operations, the German single-engine fighter units managed to achieve air superiority in the -- admittedly limited -- area of operations of the VIII Air Corps over the Belgian and British bombers, which made their appearance towards midday. The ensuing struggle took a high toll of enemy losses, while the losses sustained by the German units were relatively slight.

On the evening of the same day, the German dive-bomber units were concentrated in an attack on the city of Antwerp and the region southeast of it. The purpose of the attack was to destroy the Schelde tunnel and to disrupt the enemy troops reported assembling in the area.

By the evening of the first day of the offensive, the missions of the VIII Air Corps had been fulfilled. The prerequisites had been created for the further operations of the Sixth Army. Its armored divisions could now advance into the interior of Belgium via the bridges captured by the German paratroopers. Its infantry corps could follow without enemy interference. The Luftwaffe had eliminated the danger of heavy artillery fire from Fort Eben Emael, and the enemy was no longer in a position to interfere with the advance of the German forces on the ground.

The fact that the crossing-points over the Meuse as well as the bridges over the Canal were in German hands also provided cover against air attack for the II Antiaircraft Artillery Corps, which had taken up its position in the area around Maastricht[9].

11 May

The second day of the first phase of the offensive, whose air missions were once again devoted exclusively to the task of promoting the advance of the Sixth Army, was characterized -- for the first time -- by close co-ordination between the air units and the armored units of the Army.

The 3d and 4th Panzer Divisions advanced via St. Trond (detouring to the northwest in order to avoid the Liege fortifications) into the area north of Namur, while the infantry corps was divided in function, part of it following the armored advance, and part of it moving on to secure the Albert Canal northwest of Maastricht in order to protect it against the enemy troops moving towards the east and to ensure its remaining in German hands.

The attacks of the VIII Air Corps were carried out just ahead of the advance armored units in order to smooth the way for a rapid advance on the part of the Sixth Army. At the same time, however, the Corps bombarded the fortifications to the north and northwest of Liege, in order to eliminate the danger of enemy interference during the advance of the German Army units. In addition, there came a demand for attacks in the area directly west and northwest

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9 - The reader is referred to Chapter X, "The Employment of the Antiaircraft Artillery Corps", for further details.

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of Maastricht to relieve the ground forces fighting in that area.

Thus both flanks of the armored advance on the ground were covered by the Luftwaffe.

Air cover for the two flanks of the ground advance was all the more important in view of the fact that the operations of the advance armored units were completely "at loose ends" in the beginning. For the ground situation along the Meuse, far behind the armored units, was by no means clear. The ground-support and dive-bomber units were still engaged there in supporting (with both low-level and high-level attacks) the operations of the XXVII Army Corps, which was fighting in the Visé area. In order to guarantee adequate air cover for these forces -- i.e. for the armored units as well as the infantry forces -- the VIII Air Corps had to carry out additional attacks along the periphery of the German area of operations, specifically attacks on enemy troop assembly areas west of Bourg-Leopold, near Hasselt, and near Genck.

But the dive-bomber attacks which were carried out later in the day also had a strategic significance. This was true not only of the missions flown in the areas of Hannut and Waremme, ahead of the advance units of the Panzer corps, but -- to an even greater degree -- of the concentrated dive-bomber attack on French armored forces reported in plenty of time by German aerial reconnaissance. The French units were caught just as they were advancing across the Nivelles-Charleroi line towards the east. The Germans had not only clearly recognized the anticipated Anglo-French advance into Belgium, but had already taken steps to counter it.

As a fitting end of the second day of the offensive, another attack was carried out on Antwerp, apparently at the express order of the Second Air Fleet.

"Behind the front", as one might say, the airlanding units at Fort Eben Emael had been relieved by Army engineer troops at about midday, and the relief units had succeeded in overcoming the last resistance of the garrison of the Fort.

Enemy air activity had increased noticeably during the course of the day. Repeated attacks by British units on the Meuse bridges between Maastricht and Liege had been beaten off by German single-engine fighter aircraft and antiaircraft artillery at the cost of heavy losses for the attackers.

Operations were begun to transfer the first German air units forward into the area north of Liege, which was still in Belgian hands.

The second day of the offensive was characterized by the following:

1) The Luftwaffe smoothed the way for the advance of the armored units into the depths of enemy-held territory and provided effective air cover for both flanks of the advance group. Coordination between the Luftwaffe and the armored units, already prepared in theory, was put into practice for the first time and proved highly satisfactory.

2) The French armored units had been picked up in plenty of time by German aerial reconnaissance and were caught before they could be thrown into the operations on the ground. The ground situation was clear.

3) Enemy interference from the air had been eliminated. By the evening of the second day of the offensive, German air superiority in the area of operations of the VIII Air Corps had become an established fact.

12 May

The third day of the first phase of the offensive was necessarily devoted to the tactical and strategic development of the advance being carried out by the Sixth Army.

The first tank battle of the Western campaign took place in the area north of Namur. This battle is recorded as the "Tank Battle of Gembloux" in the military history of the Sixth Army.

During the preceding day, the German XVI Corps (Panzer) had run into the French armored units which had already been attacked by the German dive-bombers.

At the same time, German aerial reconnaissance had revealed that enemy forces were obviously preparing for battle in the Dyle position. This was a fortified position extending from Antwerp via the Mecheln-Löwen-Wavre area into the region northeast of Charleroi, where it joined the Namur fortifications line. It was clear that the Dyle position would be the immediate goal of the Anglo-French forces advancing across the Belgian border from northern France.

Within the framework of the tank battle taking place just before the Dyle position, the VIII Air Corps spent the entire day in carrying out continual attacks on enemy tank columns and assembly areas, on infantry assembly areas, on highways, towns, enemy reserves, and enemy artillery positions. The relentless attacks of the German dive-bombers, their whistling propellers screaming during their approach dives, wore down the morale of the enemy, disrupted his assembly and deployment operations, and destroyed his forces in battle, so that the

German Panzer divisions were able to gain a complete victory. The French armored units retreated towards the west.

The transfer of the German dive-bomber, ground-support, and single-engine fighter units into Belgian territory was continued throughout the third day of operations.

A summary of the significance of the employment of Luftwaffe units on the third day of the first phase of the offensive reveals the following two facts:

1) The ground-support units of the VIII Air Corps had intervened for the first time in a tank battle and had decided that battle in favor of the German Panzer units, which were thus enabled to continue their advance into the depths of Belgian-held territory.

2) German aerial reconnaissance had detected sufficiently ahead of time the fact that the next decisive enemy resistance maneuver would take place at the Dyle position.

As a result of these two factors, the starting position for the operations of the Sixth Army during the days to follow was clarified.

In an attempt to make the overall position clear, the author has done his best to describe graphically (see below) the operations of the VIII Air Corps during this first phase of the offensive, operations which were devoted exclusively to the support of the Sixth Army units during the period from 10 to 12 May.

The attached map[10] includes all those targets which could be reconstructed from the various documents still available; in other words, it shows all the towns, highways, and front sectors in which and along which

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10 - See Appendix 49.

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enemy troop assemblies or movements were bombarded by units from the VIII Air Corps.

The notes superimposed on the map do not, of course, provide the reader with anything more than an indication of the wide distribution of the attacks; they give no information as to the strength of the force participating in each individual mission or as to the number of times any given mission was repeated.

Consequently, the map can be no more than a graphic supplement to the preceding text. It is valuable in that it illustrates the air missions carried out during the second and third days within the framework of the operations at the point of main effort, in other words the missions carried out in support of the advance of the Panzer units.

~~Phase 2 - 13 to 17 May 1940 (Double Missions with Army Groups B and A Simultaneously)~~

During 12 May, all the units of the VIII Air Corps were still exclusively engaged in operations along the Sixth Army front. During the afternoon, however, the Headquarters, VIII Air Corps, received orders to contact the Third Air Fleet and the Panzer Group von Kleist, which was advancing through Luxemburg and the Ardennes towards Sedan. By 12 May, the Panzer Group, including its armored points, had already made its way forward via Neufchateau to the Meuse, approaching on both sides of Sedan. Its intention was to force its way over the Meuse as rapidly as possible and to establish a large-scale bridgehead west of the river.

The Headquarters, VIII Air Corps, contacted the Panzer Group, and the missions of the Corps in the new area of operations were discussed in detail and tailored to fit the needs of the Panzer Group. New arrangements were made in respect to ground organization, signal communications, and supply.

The Ardennes, specifically the area of Bastogne-St. Hubert-Sedan-Neufchateau, had been selected as the new troop assembly point. Mountainous and heavily wooded, the area was extremely unsuited to air operations. It was located approximately sixty-two miles south of the advance take-off base (which had already been moved forward into Belgian territory) and some ninety-three to 125 miles southwest of the original troop assembly point on both sides of the Rhine.

For the duration of its new mission, the Corps was to be "temporarily" subordinated to the Third Air Fleet. Reduced to its simplest terms, the new mission was to help the Panzer Group von Kleist to get across the Meuse.

Whether this mission would entail a long-term operation or would merely involve a limited intervention action and whether the Corps was expected to retain its previous mission along the front of the Sixth Army or might expect to be relieved of it -- and, if so, how soon -- were questions which could not yet be answered.

The fact remains that in the beginning the Corps was faced with a double mission, for in addition to the new assignment at the Meuse there still remained the task of supporting the operations of the Sixth Army. The latter job was all the more important inasmuch as recent developments in the Belgian theater had made it clear that a large-scale enemy offensive was in the offing; the Anglo-French reserve armies had arrived at the Dyle position and had been deployed to be ready for either defensive or offensive action.

For the moment, then, the VIII Air Corps was confronted with the necessity of intervening in two directions and on two fronts at the same time, of being simultaneously subordinate to two air fleets, of working together with two army groups, and of supporting the operations of two separate armies. It was no easy task, especially since the commanders of the VIII Air Corps, anticipating quite accurately the direction of future tactical developments, were convinced that the really decisive operations

would be taking place in the southwest. And instead of being permitted to concentrate their efforts in that area, they were assigned to an even more difficult mission in the north, a mission whose final result would probably be of only minor tactical significance in any case.

This was the beginning of a period of discord, of divided leadership, and of divided allegiance to two separate fronts -- in short, a period of double missions.

13 May

On 13 May the dual missions began to take shape.

During the forenoon, all the units of the VIII Air Corps were assigned to repeated attacks along the front of the Sixth Army. On 13 May the enemy tank assault on Gembloux had been followed by counterattacks by the Sixth Army all along the front, and the Air Corps intervened in ground operations in the vicinity of Löwen and, further south, in the Namur area. Two enemy divisions, attempting to cover the troop assembly area near the Dyle position, were thoroughly defeated.

In the afternoon, a concentrated attack by all available dive-bomber and bomber units was carried out in the Sedan area. This attack was a part of the large-scale air offensive directed by the II Air Corps (Third Air Fleet) against French defenses on the other side of the Meuse sector. Approximately 1,000 aircraft participated in the attack, which was carried out in consecutive waves.

As a result of the dual command as well as of the fact that signal communications procedures had not yet been entirely worked out between

the II and VIII Air Corps, the air offensive was characterized by a certain amount of confusion, which had a detrimental effect as regarded its effective concentration. Nevertheless, as a result of the mass air attack, both the Panzer Corps Guderian (the XIX) and the Panzer Corps Reinhardt (the XXXXI) managed to get across the Meuse, the XIX in the vicinity of Sedan and the XXXXI north of Charleville[11]; a tactical success which was of paramount importance for future developments, for it meant that the path into the midst of the enemy-held territory was free. The anticipated Allied counteraction by the bomber forces did not materialize.

In the area around Sedan, however, the German attackers ran into heavy enemy fighter and antiaircraft artillery defenses. The "very strong Morane units"[12], in particular, made it very clear that in this area (as opposed to the situation in the Belgian theater) German air superiority was by no means a fact. There was no doubt that the air situation was far more critical than in the previous area of operations of the VIII Air Corps.

A number of organizational steps were taken to meet the new situation. To begin with, the 26th Single-Engine Fighter Wing[13] was transferred from its station in the Ruhr District and

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11 - Guderian, in his book "Erinnerungen eines Soldaten" (Memoirs of a Soldier), has the following to say in connection with the situation on 13 May: "The French artillery was almost completely paralyzed by the constant threat of our dive-bombers and bombers. Our anti-tank units and antiaircraft artillery succeeded in immobilizing the concrete fortifications along the Meuse."
On the same day, Guderian called General Lörzer (II Air Corps) to thank him personally for the "outstanding support, which played such a significant role in our ultimate success."

12 - Seidemann, op. cit.

13 - See the organizational chart of the VIII Air Corps, Appendix 48.

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placed under the command of the VIII Air Corps. At the same time, elements of the 27th Single-Engine Fighter Wing were moved forward into the Aix la Chapelle area in order to bring them within the necessary range to serve as fighter escorts for the German dive-bomber missions being flown into the Sedan area.

Simultaneously, however, the transfer of units into the Liege-St. Trond area was continued -- an indication of the prevailing uncertainty regarding the future development of the military situation.

14 May

On 14 May the command headquarters of the Corps was moved to a castle south of St. Hubert, in the Ardennes. As far as the Commanding General was concerned, the focal point of operation already lay on the southern sector of the front[14].

During the day, a part of the units were engaged in accomplishing the transfer to Belgium, while others were reconnoitering to find suitable bases in the new area of operations. These cirsumstances naturally resulted in a weakening of the combat readiness of the Corps.

Those units available for active combat were assigned primarily to missions designed to support the operations of the Sixth Army, which was slowly approaching the Dyle position.

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14 - Seidemann gives 14 May as the date of this move, while Deichmann states that it did not take place until 17 May. Presumably, an advance headquarters was established in the Ardennes on 14 May, from which attacks on the Sedan-Charleville area were directed, while the main headquarters was still in Belgium.
Following the decision made by the Commander in Chief, Luftwaffe, on 16 May, in accordance with which the southern Panzer group was to be employed alone, both headquarters were probably united in St. Hubert on 17 May.

Repeated, successful attacks were carried out on the fortifications in the Liege area.

It was not until the afternoon of 14 May that the 77th Dive-Bomber Wing began its attacks on the Sedan-Charleville area, apparently at the order of the II Air Corps, which was in charge of operations in this part of the area assigned to the Third Air Fleet. Again the attacks were ordered to support the operations of the Army near Charleville and the advance of the XIX Army Corps southwest of Sedan[15]. The dive bombers encountered heavy French fighter defenses, which -- for the first time -- inflicted serious losses on the German force[16].

Allied bomber forces, too, apparently did their best to halt the advance of the German armies across the Meuse. Their attacks were unsuccessful, however, and their own losses considerable[17].

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15 - During this operation there occurred a number of instances in which the dive bombers attacked the wrong targets. Guderian continues his report of the events of 14 May as follows: "Unfortunately, shortly after my departure, German dive bombers erroneously attacked the troops gathered at Chemery, causing quite heavy losses."

16 - The Commander of the 77th Dive-Bomber Wing, Lieutenant Colonel Schwartzkopff, who was probably the most experienced of the German dive-bomber pilots and, in addition, a man who had contributed greatly to the organization of the dive-bomber arm, was killed in action.
Captain Graf (Count) Schönborn took over command of the Wing.

17 - Guderian's report of the events of 14 May continues: "At this point, the enemy began lively bombardment activity along the Meuse. Although the French and British pilots carried out their attacks with manifest courage, they did not succeed in hitting the bridges; their losses were quite high. Our antiaircraft artillery forces were having a field day, and their shooting was excellent."
The figure of "150 enemy aircraft shot down" by the von Hippel Regiment, I Antiaircraft Artillery Corps, which follows in Guderian's report, seems to be rather exaggerated -- presumably it refers to the total number of enemy aircraft downed by the Regiment since 10 May 1940!

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15 May

During 15 May the Sixth Army was engaged in preparations for its assault on the Dyle position, which was to take place on the following day. As an integral part of these preparations, all available dive-bomber, close-support aircraft, and fighter aircraft units carried out a concentrated attack in support of the operations of the XVI Panzer Corps in the area northwest of Gembloux, thus aiding the tank forces in their advance on the Dyle position.

The point of main effort on 15 May, as far as the overall operations were concerned, still lay along the front of the Sixth Army.

The 77th Dive-Bomber Wing along[18] was assigned to operations along the southern front, in the area around Sedan. Here it carried out successful attacks on the enemy forces facing the units of the Panzer Group von Kleist.

Fighter aircraft from the VIII Air Corps, in cooperation with elements from the I Antiaircraft Artillery Corps, were assigned the task of protecting the Meuse crossing points in this area from enemy attack.

16 May

The primary mission of the air units for 16 May remained the support of the Sixth Army in the vicinity of the Dyle position. The assault scheduled for 16 May had been postponed for one day, and preparations were being made for it.

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18 - On 15 May, Generalmajor Freiherr (Baron) von Stutterheim assumed command of the 77th Dive-Bomber Wing. Generalmajor von Stutterheim had formerly held the post of Commander of the Close-Support Forces, Third Air Fleet (Nahkampfführer der Lfl. 3) and had been in charge of the Operation STORK (Storchunternehmen) in the Bastogne-Martelange area (see Chapter IV of The Air Landing Operations of the Luftwaffe - "Die LL.Unternehmen der Luftwaffe", Morzik (?)). Generalmajor von Stutterheim was shot down just a few days later; his eighteenth injury proved fatal.

Under the circumstances, the attacks by the air units were chiefly restricted to the rear area communications system of the enemy -- the area southwest of Charleroi, in particular -- and to the railway depots of Valenciennes, Tournai, Mons, and St. Chislain.

Along the "southern front" of the operational area, the breakthrough of the German armies through the Maginot Line was supported from the air by attacks on enemy troops and artillery positions in the area northwest of Buzancy, near Stenay, and near Vouziers. The German fighter units had moved into their new bases in the meantime, and for the first time our forces were able to fly with their own fighter escort.

On the same day General von Richthofen, in a conference with Göring, persuaded the latter to issue orders to the effect that the "VIII Air Corps is to accompany the Panzer Group von Kleist as far as the sea".[19]

The necessary move of the ground organization and the flying units, which had only just begun, naturally led to certain difficulties in the command set-up and in communications procedures. The situation was rendered even more acute by the fact that the VIII Air Corps, with its new ground organization, was forced to move in between the I Air Corps, on the right, and the II Air Corps, on the left. As a result, the suitable airfields (few at best) in an area completely unsuited to air operations to begin with

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19 - The wording is based on information provided by Deichmann.

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were unbearably congested.

If the French Air Force had been more active and more disposed towards offensive operations, it could have found some extremely rewarding targets in the Ardennes.

17 May

On 17 May the units of the 2d Dive-Bomber Group carried out a last attack on Liege and battered the last fort there, Famelle, so badly that it was forced to surrender.

The majority of the German air units were engaged in supporting the Sixth Army[20] in its breakthrough at the Dyle position with attacks on enemy artillery positions and pillbox lines on either side of Löwen. They flew with a fighter escort provided by the 27th Single-Engine Fighter Wing.

Thus, on 17 May the majority of the VIII Air Corps was still employed along the front of the Sixth Army -- for the last time.

After this date the Corps turned over its previous area of operations to the IV Air Corps.

The period of double missions had come to an end.

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20 - Intensive perusal of the source materials reveals that Seidemann fails to mention that the VIII Air Corps was employed on the sector of the Sixth Army on 16 and 17 May, so that the reader must conclude that on these two days the Corps was either already being employed in full strength in its new theater of operations or still occupied with the transfer operation.
On the other hand, the missions flown by the Corps during these two days are reported by Deichmann with full documentation, so that the author has preferred to base his report on this source.
Seidemann's failure to mention these missions may be explained by the fact that he had already been transferred to the "southern front", to prepare and direct operations there. As a result, the events taking place in Belgium have -- quite understandably -- slipped his mind.

After receipt of the order of 16 May from the Commander in Chief, Luftwaffe, the VIII Air Corps devoted itself exclusively to the "southern front", i.e. to support of the operations of the Panzer Group von Kleist.

During 17 May there were apparently no important missions flown on the new front. Nevertheless, the close-support group, one single-engine fighter group, and the aerial reconnaissance unit were employed from the airfield at Charleville. Thus, in small measure and with only a small force to begin with, the Corps was able to support the Panzer units, which was moving forward along the southern bank of the Meuse and which had already covered a good deal of ground in its advance towards the west.

As soon as they had completed their last missions on behalf of the Sixth Army, the rest of the units of the VIII Air Corps moved on into their new area of operation.

The second phase of the employment of the VIII Air Corps during the period between 13 and 17 May, known as the period of double missions, can be summarized as follows:

1) Despite the difficulties inherent in an assignment to two fronts at the same time, the Corps supported the Army so successfully that it was able to make a number of highly significant gains.

2) In its support of the operations of the Sixth Army, it had not only played a decisive role in the "tank battle of Gembloux", but had also made it possible for the Army to break through the well-fortified and heavily defended

Dyle position. The advance of the Anglo-French armies into Belgium had been halted -- and the VIII Air Corps had played a not inconsiderable role in this success.

3) At the point of main effort, along the Meuse on either side of Sedan, the Corps had assisted the armored forces of Army Group A to get across the river without delay by means of air attacks designed to hold down the enemy defensive forces at the crossing points. At the same time, it had helped to destroy the Maginot Line, and had opened the way for the advance of the Panzer Group von Kleist towards the west, in the general direction of St. Quentin. The ultimate target of the operation, the English Channel, was apparently within easy reach.

4) The air situation in the two theaters of operation was basically quite different. In Belgium, German air superiority had been attained beyond the shadow of a doubt by this time. In northern France, scene of the operations of the German breakthrough armies, the battle for air superiority was just beginning.

Nevertheless, the air situation had been clarified to a certain extent by the fact that -- after the first concentrated bombardment by the RAF of the Meuse sector between Liege and Maastricht -- the mass counterattack by the French bomber units which had been expected against the breakthrough on the focal front in the Sedan-Charleville area failed to materialize (apart from the ineffectual attack on this area on 14 May).

Whether the French air units had been more or less put out of action by the aerial warfare of the past few days or were being held back for a large-scale counterattack was still an open question. The fact remained that their passive attitude had made them miss a decisive opportunity.

5) Its flexibility of leadership, its perfection of organization, and its talent for improvisation had made it possible for the Corps to fulfill two simultaneous assignments successfully. The transfer of the ground organization (which presupposed a mastery of the signal communications and supply problems which beset it) into an area which was not only already congested by both Army and Luftwaffe units but which was also highly unsuited to air operations, was an outstanding achievement.

6) The flying units had not only fulfilled the requirement that they be constantly prepared for action, but had successfully kept pace with the flexibility of their leaders. It was anything but easy for units specifically trained for close-support operations to be faced not only daily, but hourly, with new assignments, in new operational areas, and on behalf of new ground units. Yet all the missions assigned to them were accomplished.

In concluding our remarks on the second phase, let us attempt to supplement the description given in the text by reference to a map.

On the map included with the study[21], the air missions have been reproduced as clearly as the source materials permit. In any case, the map reflects the deployment of forces necessitated by the double missions assigned them, occasioned in turn by the division of the area of operations. The take-off bases utilized have also been indicated on the map.

For interpretation of the designations included on the map, the reader is referred to the map included as Appendix 49.

The Wehrmacht High Command report for 17 May stated the following:

"After heavy fighting taking place between Antwerp and Namur, the Dyle position south of Wavre was overrun and the northeast front of the fortifications at Namur was taken.

German forces have broken through the Maginot Line from a point south of Mauberge to beyond Carignan, south of Sedan, a total distance of approximately sixty miles.

Army and Luftwaffe units are engaged in pursuing the enemy troops, who are fleeing towards the west at all points."

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21 - See Appendix 50.

Phase 3 - 18 to 28 May 1940 (Support of the Operations of the Panzer Group von Kleist as Far as the Sea: Intervention in the Battle of Flanders and Artois

During the day on which the VIII Air Corps was scheduled to begin its exclusive partnership with the Panzer Group von Kleist in the latter's advance towards the west (i.e. on 18 May), the Panzer Group had advanced so far that it was almost out of reach.

As of the evening of 18 May, the Panzer Corps Guderian had already reached the Peronne-Ham-La Fere-Crecy line, and the armored units commanded by Reinhardt and Bohain were advancing steadily just north of it.

In view of the apparently smooth progress of this advance, the new take-off bases of the VIII Air Corps in the Ardennes seemed to have become obsolete before they could even be put to use. The following statistics may help to illustrate the situation:

The distance between the first armored units, which had already reached Peronne, and the nearest airfield of the new take-off area near Sedan was approximately ninety miles. Experience had shown, however, that the most effective combat penetration depths for the Ju-87's and Me-109's was between 111 and 124 miles. For the He-123, with which the close-support group was equipped, the optimum depth was only seventy-two to ninety miles, which meant that these aircraft had no chance whatsoever of being employed effectively. On the basis of these figures, the

dive bombers would have practically no time for combat over the area of operation before they reached the advance tank units. Under these conditions, only a few missions per day could be carried out, for the shorter the distance between take-off base and target, the more missions could be flown per day.

For this reason, the most urgent business of the moment was to move the ground organization as far towards the front as possible with the least possible delay.

The command headquarters of the VIII Air Corps was immediately brought forward into the vicinity of Guise (east of St. Quentin), and orders were given to bring up the ground organization installations, particularly the signal communications equipment, as soon as possible so that the flying units could move into their new airfields around the Guise area without delay.

This situation gave rise to an increasing number and variety of problems as regarded the functioning of the command set-up. One problem in particular, that of organizing the cooperation between the Air Corps and the panzer units, whose operations covered an extensive territory, was urgently in need of a solution. In order that the reader may more easily follow the operations to be described, the solution devised by the VIII Air Corps is outlined briefly below.

Even as early as during the campaign in Poland, it was clear that a solution would have to be found for the problem of cooperation between the armored forces and the Luftwaffe. A few tentative suggestions were brought forward at that time and were tried out with varying degrees of success, but no real attempt was made to formulate a standard method for coordinating the operations of the two service branches. In any case, the problem at that time was restricted to the air support

of offensive operations carried out by relatively small armored units, whose rate of advance within the framework of the overall operation was comparatively slow (tank operations west of the Vistula, for example), or to air support during advances over relatively long distances,

where little or no enemy resistance was encountered (as, for example, east of the Vistula).

In the West, however, the urgent need for close coordination became apparent for the first time during the operation in which the VIII Air Corps opened up the way into the interior of Belgium for the Sixth Army's XVI Panzer Corps. And this assignment had been a relatively simple one, since it concerned only two Panzer divisions operating in a limited area.

The problem became more complicated when the Luftwaffe close-support units were ordered to cooperate with a large Panzer force for the first time in carrying out a decision-seeking breakthrough and pursuit action of previously unheard-of scope and geographical extent. If this operation, to take place at the focal point of the overall offensive, was to succeed, it had to be based on a painstakingly exact schedule of coordination. This, in turn, presupposed that both service branches would have to plan, think, and act in terms of previously unfamiliar concepts of time and space.

The prerequisites for the success of the mission were the following: harmonious cooperation between the air and armored forces; a high degree of flexibility on the part of the commanders of both forces; and a smoothly functioning system of communication. All three conditions were fulfilled as regarded the joint thrust of Army and Luftwaffe to the Channel coast.

In view of the fundamental importance of the problem of coordination, I think that we are justified in describing in some detail the way in which it was solved before beginning the account of

the role played by the VIII Air Corps during the so-called third phase of operations. In this connection we are interested not only in the way in which coordination with the armored units was developed during the first few days of joint operations, but also in the subsequent evaluation of its effectiveness and in the ways in which it was later improved upon.

First of all, let us look at the purely technical aspect of communication in the new theater of operations. A signal communications line had been set up along the line of march taken by the Panzer Group von Kleist, and Luftwaffe command posts and airfields had been linked up with it. This network, to handle telephone and telegraph communication, was supplemented by a radio communication network.

Luftwaffe signal liaison troops had been assigned to the command posts of the Panzer divisions where they were to remain in constant contact, by radio and telephone, with the command headquarters of the Air Corps. On the basis of experience gathered during the campaign in Poland[22], this time it had been decided not to use liaison units of the traditional type, but instead to assign young officers from the Luftwaffe Signal Communications Forces, who were to restrict themselves to transmitting messages and to reporting the factual development of the military situation. They were not authorized to "advise" the Army commanders or to "request" air support. On the basis of the purely factual reports transmitted to them, the leaders of the VIII Air Corps were then able to form their own evaluation of a given situation and to decide on the appropriate commitment of their units.

The purely technical aspect of communication served primarily as

an instrument of personal cooperation among the various members of the command set-up. It was

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22 - See the study "Der Polenfeldzug 1939" (The Campaign in Poland, 1939).

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of decisive significance for the success of the joint operations and, above all, it proved to be a blessing as far as the effective commitment of forces at lower echelons was concerned.

Close coordination was guaranteed not only by the geographical proximity of the command headquarters of the Army and the Luftwaffe. In addition, the General Staff Chief of the VIII Air Corps was always available to confer in person with the General Staff Chief of the Panzer Group von Kleist[23], permitting detailed discussion of the situation and a fruitful exchange of opinions. After personal discussion of the situation and its demands, orders for the employment of the air units in accordance with the requests for support submitted by the Panzer units and approved by the General Staff Chiefs were transmitted by direct wire to the Operations Staff of the VIII Air Corps. Thus it was only a matter of seconds, or at most minutes, before the request of a Panzer division was transformed into specific orders to the air units concerned, once such details as attack time, target limitations, and the enemy ground and air situations had been clarified. In this way, too, the air units were exactly informed as to the location of their own advance ground troops and as to the situation of the enemy forces.

The effects of such a request for air support could begin to make themselves felt in the combat area concerned within forty-five minutes to an hour and a quarter after approval of the request in question. One prerequisite for the success of this short-notice method of employment, of course, was that the VIII Air Corps have one group ready for immediate commitment at all times, so that it could be in the air within twenty minutes after receipt of its combat orders.

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23 - The Chief of the General Staff of the Panzer Group von Kleist was Colonel (GSC) Zeitzler, who was later appointed Chief of the Army General Staff.

The same method was used to ensure the constant availability of an adequate fighter escort for short-notice commitment.

"Never again during the course of the war was such a smoothly functioning system for discussing and planning joint operations achieved", says Seidemann.

The question of coordination with the Panzer Group was one of the problems faced by the commanders of the VIII Air Corps. The second was created by the supply situation.

Due to a number of factors -- the suddenly longer distances to be covered, the difficulties in the transport of supplies of all kinds, the unreliability of communications lines to the rear area, the lack of both ground and air transport space available to the Corps, the shifting of the supply system from one Air Fleet area to another with the consequent necessity for coping with new supply bases and supply lines, and last but not least the unexpected suddenness with which the ground organization had been ordered to move forward -- the Corps was in serious difficulty as regarded the supply aspect.

The supply lines towards the front had not yet been adequately secured and those towards the rear were already congested by the supply columns on their way to the Panzer units and by the closely packed columns of the slower-moving infantry forces. Thus the only way of meeting the most urgent supply demands of the Corps was by air. At the request of the Corps, the Third Air Fleet provided a large number of Ju-52 transport aircraft which were kept busy delivering supplies to the Main Supply Depot (Hauptnachschubplatz) set up at the largest of the airfields near Guise.

The supply situation was made even more difficult by the unexpectedly high consumption of ammunition. Even during the campaign in Poland, it had been noted that the number of missions actually flown by the dive-bomber units per day and per month was several times higher than the figure computed during mobilization planning. Although this fact had been taken into account during the planning and preparation of the campaign in the West, the first few days of operations again showed a surprisingly high consumption of ammunition -- much higher than had been anticipated. (It must be remembered that the dive-bomber and close-support units were carrying out eight to ten group missions per day during the first few days of the offensive.) To bomb consumption must be added correspondingly high consumption of fuel, ammunition for the airborne armaments, spare parts, etc.

It was only due to the extensive commitment of the transport aircraft that the new ground organization actually succeeded in building up adequate stocks at Guise in time to permit the flying units of the VIII Air Corps to at least keep up with the armored forces in their rapid advance[24].

In spite of the supply difficulties we have mentioned, which were compounded during the first few days by the inadequacy of the communications system, the air missions continued on 18 May and on the days following.

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24 - The empty Ju-52's were reserved for the transport of Army wounded from the front. In this way thousands of wounded soldiers were able to receive prompt medical attention in hospitals at home.

The first ones were flown from the old bases until the units had settled in at the newly established airfields in the Guise area.

In connection with the supply problem, there is one more point which ought to be mentioned in respect to the arrangement and organization of ground organization installations. Chiefly because of the supply situation, but also in the interests of more effective command, the VIII Air Corps began combining nearby individual airfields into airfield groups, the one at Guise being the first. It is true, of course, that a group of airfields concentrated in a relatively small space is more vulnerable to attack by the enemy than more widely scattered airfields would be. On the other hand, the group method permits more effective concentration of the antiaircraft artillery available for defense. In this particular instance, the prerequisites for the decision to establish airfield groups were the inactivity of the Allied air forces and the fact that German air superiority had already been established.

I. The Advance to the Channel, 18 through 21 May

The missions of the VIII Air Corps during the period prior to the arrival of the advance armored units at the coast served primarily to screen the Panzer force against attack from the south and to cover its completely unprotected left flank.

The enemy targets attacked by the bomber and dive-bomber units during these few days formed a chain extending along the southern flank of the advancing Panzer Group -- Amiens, Montdidier, Ham, Soissons, Laon, Reims, Vouziers, and Stenay (Meuse) in the northern Argonne.

Attacks were carried out on any and all targets which might conceivably threaten the southern flank of the advancing force -- enemy troop columns, highway and rail traffic, artillery positions, and -- above all -- tank parks and tank deployment maneuvers, especially in the vicinity of Amiens, Laon, and Reims. Moreover, enemy bridgeheads in the south, such as those at Ham and La Fere, along the Somme, were bombarded in order to frustrate the possibility of the enemy's utilizing them as bases from which to threaten the St. Quentin area and the nearby ground organization of the VIII Air Corps.

It goes without saying that a number of units were still assigned to the secondary mission of smoothing the way for the advance tanks by means of well-placed attacks, although for the most part

the armored advance units were moving ahead without encountering any enemy resistance at all. By 18 May Guderian's tanks had reached the Peronne-Ham-La Fere-Crecy line; on 19 May the town of Albert was taken; on 20 May Amiens was occupied. The advance tanks had reached the area lying north of Abbeville.

During the course of 21 May, the advance force reached the coast northwest of Abbeville -- the first goal of the operation had been achieved.

The three maps included as Appendices 51, 52, and 53 give a clear picture of the development of ground operations in the combat sector under discussion here[25].

Map I shows the progress of the German panzer advance through the middle of the front as of 18 May, thus at the point when the VIII Air Corps began to support the operations of the Panzer Group von Kleist exclusively and when it began its transfer towards the west (Guise).

Map II supplements Map I in that it indicates the position of the Panzer Group von Kleist, i.e. that of the Panzer Corps Guderian and the Panzer Corps Reinhardt, as of 20 May; it clearly reveals their exposed position between the two now widely separated areas of operations and indicates the goals set for their immediate future.

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25 - Maps I and III were taken from the book "Deutschland im Kampf" (Germany in the Midst of the Struggle), published by the Ministry of Propaganda and the Wehrmacht High Command. Map II was taken from Tippelskirch, op. cit.

Map III reflects the situation as of 21 May, the end of the period under discussion here; the Channel coast has been reached. In addition, all three maps provide a picture of the course of the overall front on the days in question.

By the time the advance armored force had reached the Channel coast, however, the direction of interest and the missions of the VIII Air Corps had already begun to shift. To be sure, the advance force was still being supported wherever necessary, and the southern flank was still being covered from the air. But a new problem had arisen in the north -- in Flanders and Artois the battle to keep the Anglo-French armies encircled was in full swing, and the Allied armies were repeatedly trying to break out towards the south.

Beginning with 20 May, the services of the VIII Air Corps were required to an ever increasing degree in the north, a sign that the shift in its main area of concentration was beginning. The first, purely offensive missions were followed by a defensive assignment -- in the strategic sense only. For from the tactical point of view, a defensive air mission can only be accomplished through the medium of attack.

On 20 May a relatively large force was assigned to attack targets in the north rather than in the south. The focal point of its attack was the Douai-LeCateau-Bavai area, lying directly to the north of

the VIII Air Corps ground organization. A number of enemy tanks which had penetrated to a point directly north of Guise were destroyed.

On the same day, attacks were carried out to destroy the previously mentioned enemy bridgeheads at Ham and La Fere in the south.

The Corps was also still engaged in its task of smoothing the way for the advance tank force along the Channel coast towards the north.

Thus the VIII Air Corps was operating in three directions at the same time.

On the last day of this particular phase of operations (which had covered the period 18 through 21 May), there occurred a combat incident which deserves special mention and attention -- the incident at Cambrai.

During the morning of 21 May, while the advance armored force was nearing the coast northwest of Abbeville, something happened behind their own combat front which served to illuminate the danger threatening not only the ground organization of the VIII Air Corps, located as it was between two enemy fronts, but also the rear area communications lines of the Panzer Group.

Coming from the north, that is from the Flanders and Artois area, where the battle of encirclement was getting under way, a French armored force carried out an assault on Cambrai, whose nearby airfield was already occupied by the Close-Support Group and one single-engine fighter group. At the moment of the attack, the German Army had no forces at its disposal for a counteraction. The advance elements of the Infantry Corps, on its way to Cambrai, were not expected to arrive there until about noon.

The situation was critical, for French armored and motorized units had already reached the northern and eastern outskirts of the town and had taken the crowded airfield under fire.

At this point, Captain Weiss ordered his tried and tested Close-Support Group into the air and began to bombard the enemy troops in one attack wave after the other. The fighter aircraft also participated in these attacks, and the German antiaircraft artillery concentrated around the airfield (both light and heavy batteries) took part in the fighting on the ground.

Thanks to Captain Weiss' action, the enemy assault was brought to a halt and the numerous participating enemy tanks finally beaten back under heavy losses. The remnants of the enemy force, approximately forty tanks and 150 trucks of infantry troops, withdrew towards the north during the afternoon. They were pursued by the advance troops of the II Army Corps, who had arrived in the meantime and who took over the task of securing the territory to the north.

At first glance the Cambrai incident may seem to be no more than an insiginificant episode within the overall offensive. Yet it was more than an episode; if the French force had succeeded in its break-through action, it would surely have been followed by others; not only could it have overrun the ground organization of the VIII Air Corps and put it out of action, but it could also have seriously disrupted the rear area communications lines of the Panzer Group. It could have brought the advance of the Panzer Group to a halt -- temporarily at least -- by forcing it to secure its northern flank before moving on. In short the effects of such a successful breakthrough could have been of great strategic importance,

particularly if the enemy had attacked with his armored forces from the south at the same time, a move which would certainly have had to be anticipated under the circumstances.

That these developments were hindered, was due solely to the VIII Air Corps, and specifically to Captain Weiss. In an area in which there were no ground troops available, the Luftwaffe -- by itself -- had successfully countered a surprise threat to the vulnerable northern flank of the strategically very important advance armored force. A serious crisis in the overall situation had been averted[26].

On the same day, concentrated attacks were carried out on targets in the St. Pol-Bathure area and farther north, along the front of the Panzer Group, which was advancing north along the coast.

The attacks were directed from St. Quentin for the first time.

The ground organization, in other words the operational base for the units of the VIII Air Corps, had been moved forward piece by piece during the period of operations described above (18 through 21 May)[27].

The ground organization distribution map shows the original area of operations around the Charleville-Sedan-Neufchateau-Bastegne-St. Hubert region as well as the new one in the Guise-

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26 - See also the report of the Commander of the Close-Support Group, included as Appendix 54.

27 - See Appendix 55.

Cambrai-St. Quentin area, the focal point of which was the airfield group around Guise.

The map also indicates the advance take-off fields at St. Pol and St. Omer, which were established during the following few days to serve as bases for fighter and close-support aircraft[28].

In addition the map has been marked to show the ground situation, especially the course of the enemy fronts, as it was to be on the evening of 22 May. This particular date was selected because the encirclement area in Flanders and Artois was clearly apparent for the first time in the situation maps of the Commander in Chief, Army. It had not yet been clearly enough defined to show up on the maps for the preceding days.

The purpose of this map is to make it clearly evident that the ground organization of the VIII Air Corps, wedged in between two enemy fronts, was in a dangerously exposed position. One result of this situation was the Cambrai incident just described.

Nevertheless, just a few days before -- on 19 and 20 May -- the situation had been even more critical in that none of the slowly advancing infantry troops at all had arrived to secure the territory to the south along the Somme, while the French had already moved their bridgeheads across the Somme towards the north. Moreover the area between the southern and northern fronts was still full of isolated enemy units of varying strength, which had been scattered by

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28 - The advance take-off area is indicated by a broken line (- - -).

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the breakthrough of the tanks. Thus, for several days and nights the ground organization had lain in unsecured and unoccupied enemy territory, vulnerable to attack from the ground on all sides.

This unpleasant situation was made all the worse by the fact that enemy bombardment attacks against the Guise airfields had been carried out at night for the first time. These attacks resulted in not only considerable material damage to the aircraft on the ground but also a feeling of constant uneasiness among both crews and ground personnel.

On the whole, the air situation during this period seems to have been determined by the fact that the French Air Force was in process of being withdrawn towards the rear. There were hardly any reports of enemy fighter activity.

German air activity, on the other hand, was again -- or still -- suffering from supply difficulties. As a result, it frequently happened that the squadrons could take off with only seven, instead of nine aircraft, and the groups with only two, instead of three squadrons. The majority of the supply deliveries were still being made by the transport aircraft.

II. ~~The Struggle for the Channel Coast and the Battle of Flanders and Artois, 22 through 28 May~~

The exposed position of the VIII Air Corps remained critical for the time being. Large-scale enemy action was expected in both the north and the south. For at that time there was no way of knowing that the encircled enemy armies were destined to fail in their attempts to break out from the north or that there were no plans afoot for a large-scale concentrated thrust ~~xxxxxx~~ from the south across the Somme and the Aisne. All in all, the situation was characterized by a high degree of uncertainty.

The missions of the VIII Air Corps remained the same as they had been since 20 May:

1) air support for the Army in the battle of Flanders and Artois (this was the primary mission)
2) air support of the advance of the armored force along the Channel coast towards Boulogne and Calais in the north
3) air cover for the southern flank of the panzer group whenever necessary.

22 May

On 22 May weather conditions were such that aerial reconnaissance had to be postponed until the afternoon. Then, on the basis of reconnaissance reports, the dive-bomber units were sent up to attack enemy troop movements in the area of St. Omer, St. Pol, Douai, Bailleul, and Cassel.

The tank advance continued along the Channel coast towards Boulogne and Calais. The air units continued to attack ahead of the tanks, battering the enemy to the point where he was willing to surrender. By evening the tanks had arrived at Boulogne.

On the same evening, however, the dive-bombers operating near the coast suffered their first serious losses in a surprise attack by a strong British fighter force. For the first time, elements of the British home air defense force had left their bases in southeastern England to intervene in the air war over the Continent. With this, the air situation had suddenly become critical -- and it was to become more and more critical up to the battle of Dunkirk.

Again on the following day, 23 May, the dive-bombers lost a good many aircraft to the British fighters, until the German fighter units were ordered in no uncertain terms to do something about it. In the ensuing aerial combat they managed to gain the upper hand.

During 23 May, the Corps concentrated all its available units in repeated attacks in support of the battle at Flanders and Artois. All enemy troop movements and combat positions in the area west and southwest of Lille were subjected to constant bombardment. Specifically, such targets were located and combatted near Estaires, Lillers, Bethune, La Bassee, Lens, Arras, Henin-Lietard, Carvin, Ste. Catherine, Nivoulas, and Sy.

These attacks seem to have been so spectacularly successfull and their results so impressive that

by evening, General von Richthofen's evaluation of the situation was extremely optimistic -- "We won the battle of Flanders today; all that's left to do in the north is to mop up!"[29] In reality, however, the fighting was to continue for some time.

But the concentrated attack carried out in support of Army operations was not the only mission for the VIII Air Corps on that day. In the afternoon, immediately after receipt of a report that the British were landing troops from transport ships and destroyers north and south of Boulogne, both dive-bomber wings were ordered up to attack the enemy naval targets. The War Diary (Kriegstagebuch) of the VIII Air Corps records "one cruiser, three destroyers, and five transport vessels sunk"[30].

On 23 May the VIII Air Corps had concentrated on operations towards the north and northwest. On the following day -- 24 May -- it was fighting from a central point towards both north and south.

South of the Somme, a large force attacked enemy troop movements and assembly points in the Amiens-Corbie-Moreuil area, thus protecting the rear of the German armies, which faced north in the fighting of the battle of Flanders and Artois.

Subsequently the same force together with still more units was assigned to operations in the north, where it attacked enemy troop concentrations in the

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29 - Reported by Deichmann.

30 - These are the figures given by Deichmann, on whose report the entire paragraph is based. The author considers it highly unlikely, however, that the British should have been landing troops at or near Boulogne at this point. In view of the overall situation, it seems much more logical that the British should have been evacuating troops of the British Expeditionary Corps which had been caught in and around Boulogne. This version seems all the more probable

~~Footnote 30 (cont)~~

when we consider that it was shortly after this that the British Admiralty decided on Operation DYNAMO, i.e. the evacuation of the entire British Expeditionary Corps from Dunkirk.

In any case, according to the situation map for 23 May, the British troops at Boulogne were in a hopeless position and there was nothing to be gained by leaving them there, let alone bringing others to join them.

The execution of Operation DYNAMO is described in the chapter dealing with Dunkirk.

Finally, the number of enemy ships sunk seems questionable -- presumably the figures above reflect the first, overly optimistic reports brought in by the crews, who had had little experience in combatting naval targets.

Dunkirk-Cassel-Poperinghe-Ypres area, as well as enemy naval targets in the harbors of Boulogne and Wissant.

These few days give one the impression that the VIII Air Corps was "everywhere and nowhere" -- once again it was playing the role of a fire brigade, thrown into action wherever there was a flare-up. The majority of its missions provided direct relief along both the offensive and defensive fronts of the Army. In the north, its operations were largely tactical in nature; in the south, strategic.

One also has the impression that the coordination of operations with the Army was no longer so smooth; at this stage certain difficulties and a certain amount of friction were beginning to make themselves felt. General von Richthofen's remark (made on 24 May) would seem to substantiate this impression: "On all sides the enemy has to be softened up by the Luftwaffe. Our infantry is doing very little to this end, and our artillery still less. The pilots have to do it all. Everybody is screaming for our help."[31]

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31 - Based on Deichmann's report.

And at the same time, the "pilots" had to defend themselves on the ground without benefit of any support by the Army. During this period the heavily congested airfield at St. Quentin was still, or rather once again, under French artillery fire from the south; the dive bombers had to be pressed into service to put it down.

On 25 May a strong force of bombers and dive bombers was needed once again to carry out attacks in the south near Amiens (Amiens-Aumale-Motdidier), in order to support the formation of a new Army defensive front. The British tank regiments moving up to attack were beaten back.

Another dive-bomber force attacked enemy naval targets off Calais with considerable success. This attack, too, was countered by British fighter aircraft from the home air defense force -- for the first time without any success. In the meantime the German fighter escort had been strengthened and carefully organized and could no longer be taken by surprise by the British fighters.

On the evening of 25 May, after a detailed orientation session with all the panzer unit commanders, the Commanding General of the VIII Air Corps drew up the following summary of the situation in the north:

1) The enemy was still strong in the Tournai-Conde-Valenciennes-Denain-Lens area
2) The Panzer Group von Kleist had received orders from the Führer himself to stop at the St. Omer-Gravelines line to avoid going on into unsuitable terrain (!)

3) The encirclement of the remaining enemy troops, already under way, was to be completed from the east by the Sixth Army. The latter, however, was moving much too slowly.

4) In order to close off the encirclement area from the west and thus to prevent the escape of the enemy troops to the coast, the Army had requested the VIII Air Corps to do its best to help the ground forces to move forward towards the Hazebrouk-Cassel-Bergues area as rapidly as possible.

5) The main part of the town of Calais was already in German hands, but enemy resistance at the fort and on the northern edge of the town would have to be broken down by the VIII Air Corps the following day.

If the VIII Air Corps was to fulfill these new missions, its ground organization would have to be moved forward into the area around St. Pol. At the moment, however, the move could be accomplished only for the close-support group and for the fighters, since the supply situation was such that only these units could be serviced from the advance bases. The transfer of the fighter units was particularly urgent, "inasmuch as the Royal Air Force is superior to our forces in the Calais area!"[32]

Obviously under the influence of his conference with the tank commanders, General von Richthofen once again gave voice to his critical attitude towards the Army, this time in respect to its dependence upon the Luftwaffe: "We suffer the losses, and the troops call for help. They have an exaggerated feeling of vulnerability in the face of enemy air attack,

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32 - Based on Deichmann's report.

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because they are not used to it. They won't do anything any more without air support."[33]

This rather drastic statement by General von Richthofen is no doubt somewhat exaggerated. Nevertheless it does characterize a very real weakness in the ground troops at that time; they had been spoiled by the fact of German air superiority.

In keeping with the evaluation of the situation on 25 May and in compliance with the requests submitted by the tank commanders, on 26 May the activity of the VIII Air Corps was restricted to the north. All the available units were concentrated in repeated attacks on the Estaires-Armentieres-Bailleuil area, where enemy troops were tightly massed. The troop concentration area was protected by a strong fighter defense force, however, so that the attacks resulted in heavy German losses.

On the coast Boulogne had surrendered, and the attacks on the fortifications at Calais had been successful.

The ground situation as a whole is indicated by Map IV ("Status of Combat as of 26 May")[34]. As the map reveals, the encirclement area had tightened and was shifting slightly towards the west; south of it, however, along the Somme, there is no sign of a well-defined, unified front.

During the following days, the battle of Flanders and Artois gradually neared its conclusion. On 28 May the Belgian Army surrendered.

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33 - Based on Deichmann's report.

34 - See Appendix 56.

On the same day, Estaires and Poperinghe were once again subjected to heavy bombardment by the units of the VIII Air Corps -- for the last time. The battle had come to an end.

In the meantime the VIII Air Corps had already begun its activity in the Dunkirk area, which was to increase steadily -- without interruption -- until the climax represented by the British Operation DYNAMO. This account of the role played by the VIII Air Corps in Operation YELLOW (Gelb), however, finds its end with the conclusion of the battle of Flanders and Artois. Its activity during the period immediately following is described in detail in Chapter IX (An Interlude: Dunkirk).

On 30 May, the VIII Air Corps received its orders for a new offensive directed towards the south -- Operation RED (Rot).

And while the bomber, dive-bomber, and fighter units were carrying out their assigned attacks on Dunkirk -- which, in the last analysis, were unsuccessful -- the leaders of the VIII Air Corps began ~~its~~ preparations for the redeployment of its forces towards the south and for its part in the second offensive.

Map V[35] reflects the ground situation as it was after the end of the first phase of the offensive and before the start of the second phase, in other words at that point when the Luftwaffe's only assigned area of concentration was over Dunkirk.

In order to help the reader to follow more easily the account given in the text, still another map has been attached pertaining to this chapter in general

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35 - See Appendix 57, "Status of Combat as of 31 May".

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and to the last section in particular (The Struggle for the Channel Coast and the Battle of Flanders and Artois, 22 through 28 May). This is a map of France (scale 1:200,000), Sheet Nr. 4, Lille[36].

All place names which have been mentioned in the text are outlined in blue on the map.

Most of these refer to towns or villages which themselves were bombed or in whose immediate vicinity bombing attacks were carried out.

The advance airfields of the VIII Air Corps in the west are clearly marked.

One other point deserves mention: one can tell from the map how very difficult orientation and target location must have been for the dive-bomber and close-support units over the densely populated industrial district of northern France.

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36 - See Appendix 58.

~~Concluding Observations~~

Our concluding summary of the activity of the VIII Air Corps will be limited to no more than one or two points, especially as the principles underlying the conduct of operations and the execution of the operations themselves have been discussed repeatedly and in detail in the preceding account of events.

As far as the method of presentation is concerned, I should like to explain why I found it more appropriate to follow developments day by day than to present the overall course of events in outline. Only by following the activity of the Corps through each day of the offensive so far was it possible to give a clear picture of the number and variety of the missions assigned to it and of the extraordinary flexibility demonstrated by both its commanders and its troops in the face of constantly changing situations. Command and troops alike proved fully capable of coping with the tactical and strategic requirements of the Army. The problem of "direct support of ground operations" as a mission of the Close-Support Corps of the Luftwaffe was solved in positively "classic" fashion. The previous careful evaluation of the experience gained during the campaign in Poland had borne fruit, even under other circumstances and changed conditions.

The subject of the conduct of close-support operations by the Luftwaffe -- although restricted to only one corps among several -- has been dealt with in greater detail than the method of employment and problems inherent in the commitment of the other Luftwaffe corps. This is the case not only because -- comparatively speaking --

there is more documentary material available concerning the activity of the VIII Air Corps than of the other Luftwaffe corps. This is the case primarily because the problem of "direct support of ground operations" -- involving the closest possible coordination of operations between air units and large panzer units, often over long distances and entailing the long-range selection of remote targets, as well as the hazardous moving of a ground organization forward into territory threatened by the enemy -- was posed for the first time in the history of air warfare and, what is more, was solved.

It may be viewed as a deficiency of the preceding account that the connection between the activity of the Close-Support Corps and the activity of the rest of the Luftwaffe was not sufficiently stressed. Yet for all practical purposes, there <u>was</u> no connection at that time, apart from the few instances in which a connection was specifically mentioned.

As demanded by the situation in which it found itself, the VIII Air Corps planned and carried out all the missions -- tactical and strategic, as dictated by each individual situation -- on its own initiative and with its own forces. Not only did it accomplish the primary mission, that of clearing the path of advance for the panzer units, but at the same time it utilized its units to provide direct air cover along the flanks of the panzer units during their penetration thrusts into enemy territory and thus secured the strategic success of the tank assault behind the enemy front. And it was not only the Corps' small bomber force which handled these missions; the brunt was borne primarily by the dive-bomber units, which proved to be the most effective instrument available.

At any rate, the traditional division of labor -- employment of the dive-bombers in advance of the front and commitment of the bombers to cover the flanks -- was not applicable to the situation of the VIII Air Corps.

The preceding account of the course of events has made no attempt to show in how far the activity of the "long-range corps" (i.e. all the rest of the Luftwaffe corps) on either side of the VIII Air Corps may have had an indirect influence on the accomplishment of the close-support mission. It is obvious, however, that the air fleets, particularly the Third Air Fleet, as the superior headquarters of the VIII Air Corps, directed the activity of their long-range corps to conform with the requirements inherent in the need to maintain a point of main effort for the overall operation, so that their missions along the flanks of the Close-Support Corps certainly had some effect in the depths of the enemy territory, namely in those areas in which strong enemy troop concentrations were suspected or feared. The actual activity of the long-range corps cannot be delineated with any degree of certainty, at least not on the basis of the available documents. The exact degree of coordination between the conduct of close-support operations and the provision of air cover for the flanks in the depths of enemy territory could be reconstructed only by reference to the daily operational orders and the individual missions assigned to the long-range corps. Unfortunately, these orders are not available.

There is still another factor which may be significant.

As had also been the case during the campaign in Poland, the extremely close cooperation between Luftwaffe and Army and the constant need for direct participation by Luftwaffe commanders at the front lines

had led to the slow but sure withdrawal of the VIII Air Corps from the direct command of its superior headquarters. The Corps had become more or less independent. This was not so apparent as long as the Corps was subordinate to the Second Air Fleet and was operating within a clearly defined area against relatively limited targets. Once under the Third Air Fleet, however, it became more and more evident as the Corps "vanished" in the west in the wake of the armored wedge and could no longer be reached, simply because of the inadequacy of signal communications. Geographically, too, the distances between the various Luftwaffe command staff posts had grown steadily greater. By the time the Third Air Fleet got around to moving its command headquarters into southern Belgium[37], the headquarters of the VIII Air Corps had already left St. Quentin for the Doullens area (north of Amiens), in order to be as near as possible to the Panzer Group headquarters. "Under the circumstances, the VIII Air Corps had no choice but to act with a good deal of independence. The renunciation of firm command on the part of the Third Air Fleet was an intelligent and favorable move."[38]

Nevertheless, if the need for it had arisen, closer coordination with other Luftwaffe corps would have been possible at any time. On the very few occasions when this proved necessary, the problem was solved very satisfactorily.

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37 - Roumont Castle, south of St. Hubert, the abandoned command headquarters of the VIII Air Corps.

38 - Seidemann, op. cit.

In no case did the solution present any difficulty, for the two groups of missions involved were so very different. There were only two cases in which joint operations proved necessary; first, together with the II Air Corps (in charge of the operation), during the crossing of the Meuse sector near Sedan-Charleville and during the subsequent attacks on the Maginot Line in this area; and second, during the commitment of the entire Luftwaffe at Dunkirk[39].

During all the phases of the first offensive, there was frequent need for coordinated operations with the I and II Antiaircraft Artillery Corps. Carried out both as a part of the ground fighting and in air defense actions, these operations were always handled smoothly on the basis of direct personal agreements -- i.e. without orders from a superior headquarters.

In closing, let us look once more at the development of the air situation.

During the first few days of the offensive, in connection with its task of supporting the operations of the Sixth Army, the VIII Air Corps had soon achieved air superiority over eastern Belgium.

A temporary flare-up in enemy air activity during the fighting incidental to the crossing of the Meuse in the Sedan-Charleville area was quickly and successfully countered.

During the thrust to the sea, German air superiority was clear and uncontested.

In the last phase of activity, however, in the area east of

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39 - See Chapter IX, An Interlude: Dunkirk.

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the Channel coast, serious enemy air resistance made its appearance for the first time, resulting in heavy losses for the German units. The most modern fighter units of the Royal Air Force, previously spared in combat to make certain of their being available for home air defense operations, had attacked from their home bases on the southeast coast of England.

This intervention on the Continent meant a good deal more than just a defensive measure or an attempt by the British to relieve the Expeditionary Corps in its tactically and strategically threatening situation.

Viewed in its larger significance, it meant the beginning of the struggle for air superiority between the Luftwaffe and the Royal Air Force, a struggle which was to continue unabated during the forthcoming Operation DYNAMO, i.e. the evacuation of Dunkirk.

Only a few weeks later it was to reach its climax in the decisive Battle of England.

CHAPTER IV

The Employment of the Luftwaffe in Strategic Operations until the Achievement of Air Superiority, 11 through 14 May 1940

A. The Given Situation and the Preconditions for Further Action

The thrust to the Channel by the Panzer Group von Kleist, which had enjoyed decisive support by the close-support units of the VIII Air Corps, began in the form of a finely pointed wedge which grew gradually broader as it pierced the western theater of operations and finally divided it into two completely separate areas of combat[1].

As a result of this split in the overall area, brought about within a remarkably short time, it was inevitable that not only the Army Groups A and B should be forced to operate with increasing independence of one another. The Second and Third Air Fleets, too, had no choice but to shift to independent operations.

Although on the seventh day of the offensive, the VIII Air Corps was still nominally subordinate to the Third Air Fleet, in reality it played the role of a kind of independent "third force"

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1 - Map III, Appendix 53, provides a clear picture of this situation.

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between the two Air Fleets and thus served to separate them even more. This effect was made all the more evident by the fact, discussed in the preceding chapter, that the VIII Air Corps had a fairly free hand in carrying out the missions assigned to it.

Thus, with the increasing importance of the tasks of direct and indirect air support for the Army forces, it was inevitable that the two Air Fleets were forced to conduct their operations in separate and more or less independent areas of combat. It was not until the last phase of operations (Dunkirk) that these two areas were to become adjacent once more.

This fact, too, serves to justify a separate presentation of the course of events during Operation YELLOW (Gelb), despite the fact that overall employment of all the Luftwaffe units in the West continued to be directed uniformly from the Office of the Commander in Chief, Luftwaffe. Thus we are fully justified in dealing separately with the air operations which followed the first day of the offensive (described for the antire front in Chapter III), breaking them down into those assigned to the Third Air Fleet and those carried out by the Second Air Fleet.

It must be borne in mind that the missions assigned to the two Air Fleets were based on a single overall plan, that they supplemented one another, and that they frequently overlapped, both geographically and in terms of their effects, along the lines of demarcation. Nevertheless the fact remains that in the actual development of events there was no close connection and

no real cooperation between the two Air Fleets. Within the framework of the objectives assigned to them by the Commander in Chief, Luftwaffe, each Air Fleet carried out its own operations independently of the other.

The only real connections -- or in fact instances of close cooperation -- which existed were those between the Second Air Fleet and Army Group B and between the Third Air Fleet and Army Group A.

These facts[2], moreover, prove conclusively that the German Luftwaffe did not wage a uniform strategic air war in the sense defined by Douhet. Instead it considered its primary mission to be the indirect and -- to an ever increasing extent -- direct air support of the Army. As a matter of fact, the wishes and requirements of the Army Groups, in other words the ground situation, were the determining factor in the selection of objectives by the Air Fleets.

The Air Fleets had not been ordered to act in accordance with the wishes and requirements of the Army. Yet, with all the forces and resources at their disposal, both Air Fleets did their best to help the Army in its advance, moved by an inherent readiness to be of help, by recognition and accurate evaluation of the strategic objectives involved, and by clear understanding of the operational requirements of the Army, from which, after all, the vast majority of the Luftwaffe commanders had come originally.

The most important immediate goal for both the Army and the Luftwaffe was the English Channel.

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2 - The author can attest personally to the accuracy of these facts on the basis of his experience as Chief of the General Staff of the Second Air Fleet.

But precisely because this objective was not an end in itself, but only a first step in the future conduct of the war (entailing the decision-seeking offensive towards the south, Operation RED (Rot), in order to eliminate France as a military factor and to provide a base for the conduct of operations against England), the two Air Fleets combined the task dictated by the moment, namely the providing of air support for the Army, with the larger tasks of combatting the enemy's air power with a view to eliminating it insofar as possible and of getting an early start in the battle against England by attacking ocean traffic between the Island and the Continent. The goal was to prevent England from intervening in developments on the Continent.

These were the two basic principles guiding the commitment of the Luftwaffe during the course of the month of May 1940. The operations of both the Second and Third Air Fleets served this ultimate goal.

B. The Employment of the Luftwaffe in Strategic Operations until the Achievement of Air Superiority

As has already been mentioned in the preceding section, the elimination of the enemy air forces in the West was the primary prerequisite for the successful outcome of the overall operation.

The first phase of this action was determined by the goal of the achievement of air superiority, a goal which -- as a matter of fact -- was to be reached by the fifth day of the offensive.

The second phase in the elimination of the enemy air forces was the struggle to achieve air supremacy. This objective, as we shall see, was attained approximately six days after the achievement of air superiority.

These two points of time in the conduct of the air war should really be sufficient to provide a clear outline for the account of air activity, if these phases had been self-contained operations capable of being grouped under the heading of "strategic air warfare".

In reality, however, the situation was quite different. At no time was the struggle to achieve air superiority more than a part of the total mission assigned to the strategic air units. For even after the first day, the indirect and direct air support of the Army continued to be the decisive factor, not only in the planning and selection of missions,

but -- to an even greater extent -- in the actual execution of air operations. Successful accomplishment in both these areas of endeavor at the same time could be achieved only by flexibility of command and by the rapid shifting of points of main effort.

The need for the latter was met very differently by the two Air Fleets during the first phase. While the Second Air Fleet, during the period prior to the achievement of air superiority, considered -- and, indeed, was forced to consider -- its area of main effort to lie in the support of Army operations and in its own air landing operations, the Third Air Fleet was confronted with a divided mission, at least in the beginning. But there can be no doubt that it was the Third Air Fleet which made the decisive contribution to the achievement of air superiority. This was inevitable in view of the strategic nature of its missions and the geographical area in which it was operating. It faced the task of holding down the French Air Force, as the most immediately threatening air power, and the British air units which were based on the Continent, and of crushing the ground organization which served them, while the Second Air Fleet had the much easier job of eliminating the Dutch and Belgian air units, which were recognized to be inferior to the German Luftwaffe.

In spite of this, the first phase does represent a unified operation along the entire front, and for this reason we are justified in dealing with it as a unit comprising the first five days of the offensive in the areas of operation of both Air Fleets. We shall follow the development of operations from day to day in order to bring out the simultaneous accomplishment of the most varied missions

and to illustrate the rapid shifting of areas of concentration required to ensure that accomplishment. The subsequent evaluations of individual actions will be dealt with in summary form.

The following account picks up our narrative at the end of the first day of the offensive (10 May), as described in Chapter III[3].

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3 - The data contained in the following account are based primarily on the only official document available at present, "Auszüge aus den täglichen Lagemeldungen des Oberbefehlshabers der Luftwaffe, Abt. Ic" (Excerpts from the Daily Situation Reports of the Commander in Chief, Luftwaffe, Intelligence Branch). The reports concerning the employment of the Luftwaffe during the first eleven days of the campaign in the West have been preserved, and it is the careful evaluation of these reports which has resulted in the following account.

I. The Second Day of the Offensive (11 May 1940)

A. The Air Situation

The air situation was a complete surprise! The air retaliation by the enemy, anticipated in answer to the German air offensive of the first day, simply did not materialize.

German leaders had expected and feared that the reaction would come in the form of a concentrated attack by the enemy bomber units on the highly vulnerable Ruhr District. But enemy air activity had been no heavier than usual during the night of 10/11 May, with only ten to fifteen aircraft reported over the Ruhr District. During the following night twenty-five enemy aircraft were reported over that area, coming from Holland and Belgium (which indicated that they were British aircraft). There was bombardment during both nights, but the damage was slight. During the second night, the enemy aircraft also bombarded scattered German airfields, but unimportant ones, and here, too, the damage was insiginficant.

Nor did the second reaction anticipated by German leaders come to pass -- a concentrated enemy attack designed to disrupt German ground operations in the West. There was no sign that the enemy was even planning such an attack. Thus the German ground operations, of which the enemy had become clearly aware in the meantime, were safe from any interference for the moment!

On 11 May, sporadic enemy fighter activity was noted, and it appeared on the whole that the participating units were somewhat better organized than they had been the previous day. But even on 11 May -- and this was decisive for the German ground operations -- the enemy proved unable to stop the advance of the German Army at any point, either on the ground or from the air. In other words, neither the bombers nor the fighters were really effective.

Enemy aerial reconnaissance was also slight during the day, and was restricted to short penetration flights over the border area.

During the course of 11 May, a strong Luftwaffe force continued aerial reconnaissance and bombardment activity over Holland, Belgium, and eastern and central France.

Long-range aerial reconnaissance, especially, played an important role in providing an accurate picture of the movements and deployment maneuvers of the Allied armies.

The following data brought in by the long-range reconnaissance squadrons were of particular significance:

1) Troop and supply transport movements had been clearly identified along the route from Antwerp towards the areas of Hertogenbosch, Breda, and Rosendaal, obviously an attempt to come up behind the German air landing force in Fortress Holland.

2) The advance of the Anglo-French armies from northwestern France across the French-Belgian border into the Belgian theater of operations, already anticipated by the German commanders, had been identified and confirmed.

3) Large supply transports had been identified proceeding from the Reims-Laon-St. Quentin area towards the northeast and the east. Coupled with this information, reports to the effect

that supplies were being unloaded in the Charleville-Sedan area in the Meuse sector seemed to make it certain that countermeasures were being prepared ahead of the front of the German breakthrough armies, whose advance force, the panzer units, were pushing on across Luxemburg and through the Ardennes.

In any case, the enemy situation was clear beyond any doubt.

B. The Second Air Fleet

The commitment of the Second Air Fleet on the second day of the offensive was necessarily determined by the developments of the first day. From both the tactical and strategic points of view, its primary mission during the second day was providing air support for the ground operations of the Army.

1) The units under the command of the Special Duty General continued to support the air landing operation in Fortress Holland[4].

2) The units of the VIII Air Corps continued to support the advance of the Sixth Army in Belgium[4].

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4 - Here, and at numerous other points in the following account of the missions and activity of the Second Air Fleet, the missions of the units under the command of the Special Duty General and of the VIII Air Corps are simply listed day by day in the interests of completeness.
Detailed descriptions are unnecessary in this context, inasmuch as the activity of both groups is covered in full detail in the two preceding chapters. The units under the command of the Special Duty General are dealt with in Chapter IV, "The Air Landing Actions within the Framework of Operation YELLOW", and those of the VIII Air Corps in Chapter V, "The Employment of the Close-Support Units of the VIII Air Corps".
The reader is advised to refer back to these two chapters frequently in order to supplement and complete the picture presented in the present chapter. This should not be difficult in view of the fact that in all three chapters events are treated on a day to day basis.

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3) The bombardment of enemy airfields was relegated to the background. The long-range targets of 10 May (Anglo-French fighter bases on the Channel coast) were abandoned in favor of the closer airfields of the Dutch and Belgian air forces. Three fields in Belgium, located in the area of operations of the VIII Air Corps, and three on the Dutch peninsula north of Amsterdam were bombarded. The attacks on the Dutch fields were carried out by units under the command of the Special Duty General in an attempt to prevent the Dutch air units from interfering with the air landing force in Fortress Holland.

The attacks on the Belgian airfields had a direct tactical connection with the missions of the VIII Air Corps.

Thus, in the geographical area under the jurisdiction of the Second Air Fleet, activity directed against the enemy air forces and their ground organization played no more than a minor role and only insofar as it was dictated by the tactical requirements of the ground operations.

It had nothing whatsoever do do with strategic air warfare in the true sense of the term.

4) As far as long-range air attacks were concerned, the emphasis during the second day lay clearly on the indirect support of the Army in the Belgian theater and on the Belgian-French border. These attacks, continuing on into the night, were successful.

Specifically, the IV Air Corps carried out the following missions:

a) Attacks on enemy troop columns (most of them motorized) were carried out east of the line Antwerp-Brussels-Charleroi. Most of these solumns were obviously on their way to the assembly area of the Belgian Army to the east.

These missions had a direct connection with the advance of the German Sixth Army, and served to supplement the close-support missions flown by the VIII Air Corps in the depths of enemy territory.

b) Traffic facilities -- railway depots, railway lines, and rolling stock -- all over the Belgian theater of operations were subjected to repeated heavy bombardment. The focal point of these attacks lay just to the north of the French-Belgian border. Their purpose was to disrupt and delay the movement of the Anglo-French armies into the Belgian theater.

All of these attacks served the indirect support of the Army operations on the ground.

5) On this particular day the IV Air Corps paid relatively little attention to the targets represented by the harbors and naval traffic along the Channel. Only two harbors, Vlissingen and Middelburg (both on the island of Walcheren), were attacked by a small force, which managed to hit a number of transport ships.

6) Aerial reconnaissance was carried on assiduously and successfully. The picture of the enemy situation became clearer and clearer, particularly as regarded enemy activity at sea and along the coast.

Not only was the anticipated advance of the Anglo-French armies from northern France to Belgium confirmed and kept under continual observation, but -- and this was decisive for the success of the air landing operation in Holland -- the enemy troop and supply transport activity around the Antwerp area and towards the northeast was discovered in plenty of time, so that the air units of the Special Duty General were able to combat it effectively.

Summary

As far as the Second Air Fleet was concerned, the second day of the offensive brought missions contributing to the direct and indirect support of the Army. Strategic air warfare had receded almost entirely into the background.

C. The Third Air Fleet

The missions and overall commitment of the Third Air Fleet were entirely different.

There were two clearly separate areas of concentration on 11 May:

1) The attacks against the French Air Force and its ground organization installations were continued.

2) The aspect of indirect support of ground operations became evident for the first time in the form of attacks carried out on traffic facilities lying ahead of the planned breakthrough front.

The primary mission was the continuation of the attacks on the French Air Force.

Extensive, long-range aerial reconnaissance of the enemy ground organization facilities (in the area Compiegne-Chartres-Tours-Chateauroux-Nevers-Metz) had already revealed that the enemy was beginning to move his bomber units from central France into the Belgian theater of operations[5].

Consequently, concentrated attacks were carried out on air bases, airfield complexes, and about twenty other individual airfields. Due to the number of targets involved, it is impossible to reconstruct which ones were assigned to the various air corps, as we were able to do in connection with the Second Air Fleet.

Once again the point of main effort lay in the area south and west of the planned German breakthrough front -- the close coordination of air and ground operations soon becomes apparent in the conduct of so-called "strategic air warfare".

Long-range air attacks were carried out as far to the southwest as the Loire (Orleans) and Bourges[6].

The attacks on air bases and aircraft parks presumably had the most far-reaching effects, for it could be assumed that they did much to disrupt supply and aircraft repair activity (particularly at the air base near Metz and at the Romilly aircraft park).

The secondary mission, as we have mentioned, was the providing of indirect support for Army operations.

Aerial reconnaissance had discovered that the enemy was dispatching troop and supply transport columns from the area of Reims-Laon-St. Quentin

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5 - New bomber units were observed, for example, at Le Bourget and Villacoublay.

6 - According to the situation reports of the Commander in Chief, Luftwaffe, approximately 100 aircraft were destroyed out in the open and 100 - 150 in the hangars.

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towards the northeast, and that unloading activity was going on in the Meuse sector between Sedan and Mezieres.

Hereupon attacks were carried out on railway lines and rolling stock along the French defense line (from Verdun via Sedan, Mezieres, Charleville, and then to the north to Givet and to the northwest to Aulnoys), which ran parallel to and just in front of the German breakthrough front. The attacks were successful and managed to disrupt transport activity at at least twenty different points. This was an air action directly connected with the ground operations of the German panzer units, which were moving forward out of the Ardennes towards the Meuse on both sides of the Sedan-Charleville area. During the days to follow, this indirect support of Army operations by means of air attacks on enemy transport facilities was to change gradually into direct support.

On 11 May, however, there were only a few units concerned with direct support of ground operations. Their commitment, in the Ardennes, seems to have been quite successful. Low-level attacks (especially by the dive bombers) over the area of Bouillon (northeast of Sedan) and near the Semois River did much to facilitate the crossing of the river for the panzer units. There is no information available on the strength and composition of the units participating.

Summary

In contrast to the Second Air Fleet, the Third Air Fleet had utilized the majority of its forces to carry on the strategic air war. At the same time, however, a number of units were committed in actions designed to support the operations on the ground.

II. The Third Day of the Offensive (12 May 1940)

A. ~~The Air Situation~~

Once again, enemy air activity during the night had been surprisingly slight. Scattered bombardment of the Rhine-Eifel area had been reported. The members of the staff of the Commander in Chief, Luftwaffe, were beginning to think that the Allied bomber forces were being employed without any plan whatsoever.

On 12 May, German long-range aerial reconnaissance activity was devoted chiefly to observing the Anglo-French bomber units. The report that bomber units were being concentrated in the theater of operations could not be confirmed. It was noted, however, that action was being taken to move them somewhat closer to it; the majority were being brought into the Paris, Reims, and St. Dizier areas.

Enemy aerial reconnaissance activity was remarkably slight and was restricted to German territory just inside the border.

On this day there was almost no enemy fighter activity over the Dutch and Belgian operational areas. Even the antiaircraft artillery defenses had become noticeably weaker, so that the German units were able to carry out their missions practically without interference. It was only over the area just ahead of the German breakthrough front, over the Meuse sector, that a tightly concentrated group of enemy defense fighters made their appearance during the day. Antiaircraft artillery defenses, too, were stronger than before in this area

and also in the vicinity of the airfield at Mourmelon.

The behaviour of the Allied air forces on the third day of the offensive was extremely puzzling, particularly in respect to their utter passiveness in all areas. The absence of a systematic counterattack by the bomber forces might possibly be explained by the theory that Allied air commanders were holding back their strategic air units -- assuming that they possessed them -- until the situation was perfectly clear, so that they could then commit them en masse at the focal point of operations.

But the fact that neither reconnaissance nor fighter aircraft were very much in evidence gave rise to the general conclusions that, first, the French air commanders were still paralyzed by the surprising developments of the first two days and still in a state of disorganization, and second, the German attacks on the ground organization had not only resulted in really serious losses, but had also forced the dissipation of those units still capable of operation by making it necessary to distribute them over widely scattered small emergency fields. If this was really the case, then it was clear that there would be difficulties and delays in organizing them for commitment.

At the same time, however, during the course of 12 May German leaders gradually became convinced of the fact that the German Luftwaffe was steadily gaining superiority over the enemy.

B. The Second Air Fleet

During 12 May the Second Air Fleet concentrated exclusively on the task of providing direct and indirect air support for the operations of the Army.

On this day there were no attacks whatsoever on the enemy ground organization.

The geographical areas concerned, as regards the direct air support actions, were the same as on the preceding day:

1) Air units under the command of the Special Duty General: support of the air landing operation in Holland, which was now no longer in a critical situation (at least psychologically), since the advance elements of the 9th Panzer Division, Eighteenth Army, had managed to contact the paratroopers at the southern bridgehead near Moerdijk the previous evening.

2) Units of the VIII Air Corps: provision of air support for the advance of the Sixth Army in eastern Belgium.

As regards indirect support of Army Group B, the entire IV Air Corps was employed in missions against the marching routes, transport routes, and troop assembly areas used by the Anglo-French armies during their trek from northern France into Belgium. The attacks caused a great deal of damage to the enemy communications lines and thus did much to delay the progress of the armies.

The fighter aircraft and, above all, the II Antiaircraft Artillery Corps made certain that the German armies could advance without enemy interference. They were employed over the front, ahead of the front, and at the Meuse bridges in the rear area, as well as at a number of other bottleneck areas.

C. The Third Air Fleet

On 12 May the Third Air Fleet was once again faced with two missions: continuation of the attacks on the Anglo-French air forces

and on their ground organization installations, and the providing of indirect air support for the German offensive front by means of attacks on transport facilities, troop movements, and troop assembly areas.

1) The struggle against the enemy air forces was continued, partly in the form of repeated attacks on targets which had already been hit and partly in attacks on new targets. The focal point on 12 May was the French base of air operations to the south of the future breakthrough front (in the Verdun-Toul-Epinal area), and -- for the first time -- the airfields in the Strassburg area. The purpose was to eliminate the possibility of enemy interference along the flank or in the rear of the German ground force.

   Although the German aircraft ran into heavy French fighter defenses on one or two occasions, their attacks on the air bases at Reims and Mourmelon (two large bases lying ahead of the breakthrough front) were particularly effective.

2) The mission of indirect support of Army operations was carried out in approximately the same geographical area as the preceding day. As before, its purpose was to bombard transport facilities (rail depots, railway lines, transport trains), troop movements along highways, and troop concentration areas directly ahead of the panzer wedge in order to nip in the bud any enemy attempt at a counteraction.

   The majority of attacks were carried out in the Beaumont-Charleville-Stenay-Rethel area. Another important target was the direct railway line

between Verdun and Givet, through the Meuse valley. The attack was a complete success and served to intensify the damage already done the day before.

A smaller force was also assigned to bombard transport facilities and troop movements along the French-Belgian border in the Lille-Douai-Valenciennes-Avesnes-Laon area, in order to supplement the attacks carried out on transport activity in the areas already mentioned.

Summary

The struggle to eliminate the Allied air forces and their ground organization facilities was only a part of the mission of the Third Air Fleet on 12 May 1940.

The majority of the Luftwaffe forces stationed in the West had already gone over to indirect air support for the ground operations. Apart from the missions of the units of the Special Duty General and the VIII Air Corps, which were largely tactical in nature, their activity was characterized by two points of main effort which were of strategic importance.

1) The large-scale concentrated attacks carried out by the Third Air Fleet to the west and the south of the proposed breakthrough point on the Meuse, which point to a close coordination of the operations of the Luftwaffe and the Army; and

2) The attacks carried out by both Air Fleets on the enemy transportation system in the depths of their respective operational areas, attacks which supplemented each other on both sides of the French-Belgian border and whose purpose was to disrupt enemy preparations for sending troops and supplies to Belgium

as well as from the central troop assembly area to the German break-through sector.

Beyond any doubt, the indirect support of Army operations was the most important mission on 12 May.

This appraisal of Luftwaffe activity on 12 May seems to be contradicted to a certain extent by the report of the Wehrmacht High Command of 13 May (these reports always covered the events of the preceding day), in which the following sentence appears:

> "In addition the Luftwaffe continued with notable success its large-scale offensive to achieve air superiority over the Western theater of operations."

The above sentence can be considered factually accurate, if it was intended to summarize the developments of the preceding day, and if one bears in mind the deliberate tendency towards propaganda.

III. The Fourth Day of the Offensive (13 May 1940)

A. The Air Situation

During the night there had been a few enemy aircraft reported over the territory of the Reich (Rhine Valley, Eifel) and some scattered bombardment. There was no evidence of concentration on a particular area or target.

During the day the aerial reconnaissance squadrons, which had been ordered to concentrate on airfield reconnaissance, brought in reports which seemed to confirm the transfer of enemy bomber units nearer the front. British bomber units were tentatively identified at airfields east of Amiens.

Enemy fighter activity was more lively than it had been during the previous day, but it was not intensive enough to prevent or even obstruct the accomplishment of the missions assigned to the German air units.

During the day and on into the following night, enemy aerial reconnaissance activity was heavier than before, with a large force reconnoitering as far south as the Kaiserslautern-Sigmaringen line. There was no increase in reconnaissance in the northern theater.

B. ~~The Second Air Fleet~~

The missions assigned to the units under the command of the Special Duty General and the units of the VIII Air ~~Fleet~~ Corps were the same as on the preceding day. The situation in Fortress Holland was now stable; the 9th Panzer Division,

together with elements of the 7th Air Division (temporarily subordinated to the Panzer Division), was on its way to Rotterdam.

Despite the unfavorable flying weather, the IV Air Corps continued extensive reconnaissance into the depths of enemy territory and was able to identify strong enemy marching columns coming from the Channel coast (Ostende, Dunkirk, Calais) and moving towards the east and northeast; other columns were noted west of the Antwerp-Charleroi line. The Allied advance to the Dyle position was under way.

Bombardment missions on 13 May were restricted by bad weather. Nonetheless a few attacks were carried out on railway and highway targets in the area between Antwerp and Mons.

There was no bombardment of enemy airfields.

C. The Third Air Fleet

In the Third Air Fleet area, too, there was almost no bombardment of enemy airfields; a small force was sent up to raid four airfields belonging to the French Air Force ground organization.

On 13 May, however, the previous indirect support of Army operations was replaced by direct support actions for the first time. These were carried out by a combined force of bomber, dive-bomber, twin-engine fighter, and single-engine fighter units of the Third Air Fleet (II Air Corps), reinforced by elements from the VIII Air Corps.

Coming in successive waves, the German units attacked and destroyed stationary fortifications,

artillery batteries, ammunition depots, troop concentrations, marching columns, and railway depots in the entire operational area of the coming panzer breakthrough. The focal point of the attacks was the Charleville-Sedan area.

This tight concentration of a strong force over a limited area made it possible to frustrate the enemy attempt to defend the Meuse sector and to prevent the bringing up of enemy forces for a counterthrust. As a result the advance elements of two divisions of the Panzer Group von Kleist were able to get across the Meuse at various points between Sedan and Charleville.

This action resulting in direct support of the ground operations was supplemented by a number of missions designed to provide indirect support along the same front. Heavy attacks were carried out against the same targets as on the previous day, i.e. transportation facilities located immediately in front of the breakthrough area.

~~Summary~~

Apart from the minor attacks carried out on enemy airfields by the Third Air Fleet, on 13 May both Air Fleets concentrated all their forces on providing direct and indirect support for Army operations.

This fact points to two things:

1) At this stage of the developments, enemy air power already seemed to have been eliminated, or at least paralyzed. In any case the enemy air forces were not in a position to

jeopardize German air superiority along the decisive combat fronts.

2) After the panzer units had forced their way across the Meuse, between Sedan and Charleville, the enemy could not possibly be in doubt any longer as to the German plan of operation. The question was now how Western leaders would react to this new certainty, particularly in regard to the commitment of their air power, which had obviously been held back up to that time.

In the office of the Commander in Chief, Luftwaffe, too, the impression that the first phase of the air war was over was gaining currency. For it was not mere coincidence that the situation report of the Commander in Chief, Luftwaffe, for 13 May closed with a summary of the losses suffered by the enemy during the period 10 through 13 May 1940.

This summary is reproduced below.

Enemy Aircraft Losses in the West

10 through 13 May 1940

Day	Superior Hqs	Aircraft Shot Down in Combat (confirmed)	Aircraft Shot Down by AAA (confirmed)	Aircraft Destroyed on Ground	Total Losses (confirmed)	Aircraft Assumed Destroyed in Hangars
10 May	2d AF	41 (18)	1	173-184(41)	215-226(59)	155 (?)
10 May	3d AF	23	-	35-40	58-63	200-450(?)
11 May	2d AF	25 (10)	7	88 (67)	120 (77)	?
11 May	3d AF	27	-	100	127	100-150(?)
12 May	2d AF	34 (13)	50	26 (16)	112 (29)	-
12 May	3d AF	10 (7)	6	80-90 (5)	96-106(12)	-
13 May	2d AF	23 (20)	3	38 (6)	64 (21)	-
13 May	3d AF	29 (13)	16 (1)	18 (6)	63 (20)	-
13 May	Spec. Dty. Gen.	3 (1)	21	-	24 (1)	-
TOTALS		215 (82)	104 (1)	560 (141)	879-905(219)	455-755(?)

There are a number of points which ought to be mentioned in connection with the above table:

1) At first glance the figures seem to be inordinately high, and it may be assumed that, in part at least, they are based on estimates ("Aircraft Assumed Destroyed in Hangars", for example). But even if one discounts training aircraft, commercial aircraft, factory and test aircraft, and possibly even dummy aircraft,

the remaining total still represented a considerably high probable loss to Allied air power.

2) As far as the French Air Force is concerned, the majority of losses were probably made up from the aerial reconnaissance units operating along the front and -- to a lesser degree -- from the close-support units stationed in the forward area. Some fighter aircraft were presumably also destroyed, although on the first day a good many managed to get into the air in time to escape the bombs released over their airfields[7].

3) The Dutch Air Force was considered completely eliminated for all practical purposes, and the Belgian Air Force considerably weakened.

4) There is no doubt that the combat readiness of the French Air Force was seriously jeopardized by the destruction of hangars at the French airfields and especially the so-called air bases and by the presumed destruction of the aircraft parked inside the hangars.

5) Even before the German air attacks, a number of French air units had been moved to emergency fields. As a result of the German attacks, additional moves were necessary, and it can be assumed with certainty that this served to reduce their combat readiness even further.

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7 - The situation report of the Commander in Chief, Luftwaffe, contains the following comments on the statistics given:
a) The summary includes aircraft of all types and models. It can be assumed that the majority are combat aircraft. The figures in parentheses refer to fighter aircraft.
b) The enemy aircraft downed within the area of jurisdiction of the Special Duty General during the period 10 through 12 May are included in the figures given for the Air Fleets.

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6) There is nothing in the table to indicate in how far those elements of the Royal Air Force stationed on the Continent were affected. In any case, their losses must have been considerable, even if one only takes into account the British bomber attack on the Meuse bridges near Maastricht, with its heavy losses.

Now let us compare the official German statistics on enemy aircraft losses with a table of German losses for the same period. The table below has been prepared by the author on the basis of the daily situation reports of the Office of the Commander in Chief, Luftwaffe.

German Aircraft Losses during the Period

10 through 13 May 1940

Day	Aircraft type										Daily Losses
	Ju 88	He 111	Do 17	Ju 87	Me 109	Me 110	Hs 126	Do 215	He 115	Fi 156	
10 May	9	24	14	2	25	-	-	2	5	2	83
11 May	2	17	3	8	4	6	2	-	-	-	42
12 May	2	13	6	2	-	4	-	-	-	5	31
13 May	3	12	-	2	6	3	-	-	-	-	26
TOTALS	16	66	23	14	35	13	2	2	5	7	183

The above table does not take into account the extremely high losses in Ju-52's (transport aircraft) suffered in Holland

or the losses in Fi-156's sustained during the air landing in the Ardennes.

A completely reliable comparative evaluation of the statistics referring to German and enemy aircraft losses is impossible for a number of reasons, the most important of which are given below:

1) Both sets of statistics were prepared by the same side, the German. A true comparison would only be possible if the figures reflecting the losses of the other side were available and completely reliable. They are not.

2) The figures pertaining to enemy losses are based in good part on estimates (particularly those contained in the columns "Aircraft Destroyed on Ground" and "Aircraft Assumed Destroyed in Hangars").

   The only figure which can be accepted without doubt is the 319+ enemy aircraft shot down (confirmed). This can be compared with a total of 183 German aircraft shot down.

3) Even the figures pertaining to German losses do not give a clear picture, or at least not a complete one.

   The situation reports of the Commander in Chief, Luftwaffe, do not define the term "total losses" (Gesamtverluste). This term could mean either:

   a) the so-called total losses suffered in terms of aircraft and crews on both sides of the front, or:

   b) the number of aircraft "missing", i.e. aircraft and crews downed on the enemy's side of the front line.

+ - Translator's Note: Editor, please check! The table on page 233 gives 219 as the total confirmed (though even 219 seems to be 5 off judging from the individual figures in parentheses - ??).

In either case, the term must be presumed to refer to the total number of aircraft and crews lost. It is not unlikely that the admitted total of forty-six aircraft per day refers to these "total losses".

4) Then, too, there is the question of how many aircraft may have suffered damage slight enough to permit them to get back to their own territory but severe enough to put them out of action for a few days. In other words, the statistics do nothing to answer the questions of the combat readiness and combat strength of the units concerned after the losses indicated.

For the above reasons, a true comparative appraisal of the two sets of statistics is out of the question.

But regardless of what the losses may have been on both sides during the first four days of the offensive, by 13 May the Commander in Chief of the Luftwaffe was already of the opinion that the question of air superiority had been decided in favor of the Luftwaffe.

The question of how the Allied air leaders, with the units still at their disposal, would react to the German air and ground operations then in progress remained open.

And the following day was to bring an answer to this open question.

IV. The Fifth Day of the Offensive (14 May 1940)

A. The Air Situation

Again, during the night there had been no more than ten to fifteen enemy aircraft reported flying in over the Reich from Holland and Belgium (thus British bombers from bases in England). Bombs had been dropped over the Rhine-Ruhr area but had caused no serious damage. As before, the staff of the Commander in Chief, Luftwaffe, was convinced that there was no plan behind the enemy flights.

This serves to explain the appraisal of the situation which was gaining currency at that time in the office of the Commander in Chief, Luftwaffe. In retrospect, however, it is clear that the situation was somewhat different.

An underlying plan becomes apparent if one considers these night flights as preparatory missions, as training and navigation practice flights, in short as preparation for a large-scale operation to follow. It seems likely that the main purpose of the flights was to test new radio direction techniques. The bombardment served the dual purpose of camouflageing the real significance of the flights and of creating unrest among the population and disrupting production in the Ruhr District at the same time. The British were operating in terms of long-range planning. They could afford to wait. The outcome of the struggle going on on the Continent did not concern them directly as yet -- they were planning for the future.

There was relatively little enemy reconnaissance activity, their aircraft coming only as far as the Rhine.

Unusually lively activity was noted at the airfields near Brügge, Ghent, Dunkirk, and Abbeville along the coast of Belgium and northern France. This seemed to indicate that the fields were being readied to accomodate British bomber units.

The main event on 14 May was the first large-scale attack by a strong force of enemy bombers and fighters on the Sedan-Charleville area, near the Meuse crossing points of the German panzer units. In aerial combat alone a total of sixty-nine enemy aircraft were brought down (total confirmed)[8]. The attack was beaten off with heavy losses for the enemy[9].

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8 - See the chapter dealing with the employment of the Antiaircraft Artillery Corps for the number of enemy aircraft brought down by artillery.

9 - Winston Churchill (Their Finest Hour, pages 59-60 of the German edition ("Englands grösste Stunde")) writes the following about the British bomber units participating in the attack: "During the 14th the bad news began to come in. At first all was vague. At 7 P.M. I read to the Cabinet a message received from M. Reynaud stating that the Germans had broken through at Sedan, that the French were unable to resist the combination of tanks and dive-bombing, and asking for ten more squadrons of fighters to re-establish the line." Churchill's report continues: "All the British air squadrons fought continuously, their principal effort being against the pontoon bridges in the Sedan area. Several of these were destroyed and others damaged in desperate and devoted attacks. The losses in the low-level attacks on the bridges from the German antiaircraft artillery were cruel. In one case, of six aircraft only one returned from the successful task. On this day alone we lost a total of sixty-seven machines, and being engaged principally with the enemy's antiaircraft forces, accounted for only fifty-three German aircraft. That night there remained in France of the Royal Air Force only 206 serviceable aircraft out of 474."

This was the first and also the last attempt by the Allies to mount a large-scale air operation, to join the struggle for air superiority, and to intervene decisively in the ground operations of the German Army. The attempt had failed -- and it was not repeated. This was the answer to the question left open at the end of our summary of the situation as of 13 May.

B. The ~~Third~~ Second Air Fleet

In terms of missions and method of employment, the tasks faced by the Second Air Fleet were the same as before.

The units under the command of the Special Duty General were assigned -- for the last time -- to support the air landing troops in the area around Rotterdam.

The VIII Air Corps continued to assist the Sixth Army in its advance and detached a number of units to carry out attacks along the breakthrough front of the Panzer Group von Kleist, along the southern Meuse sector.

The IV Air Corps seems to have concentrated on 14 May on the Dutch and Belgian coastal areas, where -- according to official documents -- it succeeded in sinking six cruisers and destroyers, damaging one battleship and one cruiser, and destroying or damaging a total of 43,000 tons of shipping space.

C. ~~The Third Air Fleet~~

All the combat units were employed in a series of attacks on the Fumay-Chalons s.M.-Revigny area in order to provide support for the operations of the Army.

Highly successful attacks were also carried out on enemy marching columns, troop assembly areas, tank concentrations, fortifications, and rail and highway networks west of the Meuse. And finally, the Luftwaffe hammered away without respite at the rapidly retreating French armies.

Observation of the target distribution south of the breakthrough front makes it perfectly clear that the focal point of the attacks on enemy transport facilities south of the front lay approximately east and north of the line Rethel-Ste.Menehould-Revigny-Metz, in other words in the overall area of Verdun. In short, the vulnerable left flank of the breakthrough wedge, now turned towards the west, was being screened from the south by the Luftwaffe by means of attacks designed to disrupt and destroy railway and highway routes which had already been subjected to repeated bombardment.

Once the VIII Air Corps had succeeded for the first time, in a limited tactical operation, in screening both flanks of an admittedly limited panzer thrust out ahead of the Sixth Army, it occurred to German leaders that it might be possible to let the Luftwaffe alone provide the necessary cover for the open flank of a larger Army operating force. This technique <u>did</u> prove to be feasible, and from that time on was used with increasing frequency as the panzer wedge continued its push through to the coast with both flanks unprotected from the ground.

A second characteristic of this fifth day of combat was the appear-

ance

concentration of a strong air defense force at the main crossing points along the Meuse. In addition to their missions as fighter escorts for the German bomber units, the single-engine and twin-engine fighters were employed to cover the river crossing points used by the Army. The effectiveness of the fighter force was augmented by the assignment of the majority of the I Antiaircraft Artillery Corps to the same area.

It was this concentrated air defense force which met the aforementioned British bomber units and beat them back under heavy losses.

Summary

The following developments must be regarded as the most significant phenomena of the fifth day of the offensive:

1) The Luftwaffe had played a decisive role in furthering the Army's main operation on the middle sector of the front. The German forces had broken through the Maginot Line, and the panzer wedge was already moving forward west of the Meuse into the depths of enemy territory.

2) For the first time, the Luftwaffe alone had taken over the task of screening the vulnerable southern flank of the Army force in an action which had been carefully planned and exactly coordinated with the requirements of the Army. This represented a "new" weapon in the conduct of war -- the commitment of air units and tanks to supplement each other in strategic joint operations over long distances and against remote targets.

This was something entirely new and something which must be examined more closely in respect to the actions which preceded it.

The course of events in the operational area assigned to the Third Air Fleet since the beginning of the offensive is a characteristic example of preparations for a decisive breakthrough action and for the screening of the open flank of the breakthrough force by the Luftwaffe in the form of indirect air support. During the entire period the focal point of Luftwaffe activity had lain in the destruction and disruption of the enemy's transport network (rail and highway) both in front of the proposed breakthrough front and along the southern flank of the breakthrough force.

Mere textual description of these events is inadequate, since it cannot evoke a sufficiently clear picture of the execution of this operation. For this reason the author has attempted to illustrate the distribution of the air attacks, and thus the selection of targets, by means of a map.

The map included[10] reflects all the bombardment missions flown against the enemy's transportation network along the Meuse in the Sedan-Charleville area during the four days between 11 and 14 May, thus prior to and during the breakthrough operation -- that is, all those

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10 - See Appendix 59; Map of France (scale 1:200,000), the sheets showing the Mezieres and Chalons areas.

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missions listed in the situation reports of the Commander in Chief, Luftwaffe[11].

The markings on the map -- each bombardment mission is indicated by a heavy blue dot[12] -- reveal the following:

1) Ahead of the front line of the Panzer Group von Kleist there is a clearly recognizable strip of enemy territory inside of which the entire transportation system of the Meuse valley (from Verdun via Stenay, Sedan, Charleville, and Fumay to Givet) has been cordoned off.

This was to prevent, or at least delay, the enemy from moving any more troops or supplies along the highways or railways in the Meuse sector on either side of Charleville-Sedan. Such an attempt on the part of the enemy had been anticipated, and in fact was already under way at some points. In these instances, the enemy was to be prevented from bringing up additional reinforcements from the fortified area around Verdun.

2) The systematic destruction of the railway lines leading from the Aulnoye-Avesnes-Maubeuge area via Hirson to Charleville also helped to prevent the enemy from bringing up troops by rail from the west and northwest. These attacks were an integral part of the Luftwaffe plan to achieve air superiority over the Meuse valley.

3) Still a third point of main effort is outlined on either side of the Argonne and to the south of the wooded area. All of these attacks, whose focal points can be clearly recognized --

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11 - Almost all the place names mentioned in the situation reports were found on the map; certainly no more than 5% are missing.

12 - The blue dot signifies only the fact that an attack took place and

Footnote 12 (cont)

the geographical area affected; it does not indicate the strength of the attacking force or the effectiveness of the attack.

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first in the south between Revigny and Ste. Menehould, and then around the Vouziers-Rethel area -- served the immediate objective, vital if the Meuse valley was to be completely cut off from the enemy, of preventing or rather obstructing a new concentration of enemy troops in the Meuse sector as long as there was still time for this and a chance that it would be undertaken.

Their long-range purpose, however, was to screen the German attack force towards the south -- in other words to provide cover for the vulnerable flank.

It was at that point, when the French defenses on the Meuse near Charleville and Sedan had been broken through and the forward German tanks were already advancing west of the river, that these problems of cutting off the Meuse valley and providing cover for the flank became urgent.

A glance at the map shows clearly that, by cutting off the Meuse valley south of the German breakthrough front, any and all attempts by the French to organize a new counteroperation from the Verdun-St. Dizier or the Reims-Chalons areas, could -- and had to -- be met.

4) The systematic plan behind the commitment of the bomber units of the Third Air Fleet during four decisive days becomes evident from the overall picture. None of the attacks was an end in itself; every one was carried out in the interests of the ground operations of the Army.

The attacks were a part of a long-range plan. By disrupting the enemy's entire transportation network,

they made it impossible for French military leaders to react quickly and effectively to the German plan of operation, which, of course, had been clearly recognized in the meantime.

In spite of the concurrent need for continued assignment of air units to the strategic air war against Anglo-French air power, the problem of the formation of effective points of main effort in air operations had been solved in an exemplary manner. The Army was the winner.

5) The map picture, however, is not entirely complete. The bombardment of the enery transportation system by the Third Air Fleet spread out beyond the limits of the present map into the area around Metz, after reconnaissance had revealed heavy traffic along the railway line Metz-Diedenhofen-Conflans in both directions.

6) As far as the ground situation on both sides is concerned, the markings on the map are neither entirely up to date nor do they conform th the status achieved as of 14 May. They only outline the general direction of thrust of the German panzer units towards the Meuse.

The addition or further detailed markings would have interfered with the real purpose of the map.

So much for the systematic employment of the Luftwaffe in this operational area during the period in question.

On the fifth day of the German offensive, the Allied air forces had seized the initiative for the first time and had concentrated their bomber units -- hardly in evidence prior to that time -- in a large-scale attack on the strategically proper and most important point offered by the overall situation -- on the highly vulherable crossing points on the

Meuse being used by the German panzer force.

As we have seen, the attack was a failure, and the British forces paid for their meager success with extremely heavy losses. The attack was never repeated, either here or during any other phase of the subsequent campaign. The offensive power of the enemy air forces was broken. This first and last air battle between the German Luftwaffe and the ~~Anglo-British~~ Anglo-French air forces during Operation YELLOW (Gelb) had been decided without any doubt in favor of the German Luftwaffe.

The top-level German military command obviously interpreted this fact and its significance for the air situation as a whole quite correctly. The report of the Wehrmacht High Command of 15 May, reflecting the situation and developments of the previous day, contains the following statement in the section dealing with air operations:

> "Enemy attempts to disrupt German operations by means of a strong bomber force, were frustrated under heavy losses for the enemy without any appreciable effect on our own freedom of action in ths air."

This decisive concluding statement gives accurate expression to the fact that German air superiority had actually been established by the fifth day of the offensive.

A review of the overall course of the offensive serves to confirm that this evaluation of the air situation was perfectly accurate.

The first goal of air operations had been reached ahead of schedule -- air superiority had been achieved!

Another six days were to pass before the second goal was attained -- the achievement of air supremacy. The report for 21 May of the Wehrmacht High Command was to contain the words "complete domination of the air-space".

Thus the fifth day of the offensive represents a definite break in the development of operations in the West. This was not only due to the fact that air superiority had been achieved; there were two other elements of importance. And the combination of all three of these elements -- each of them signifying a "break" in operations in its own right -- results in the situation as of the evening of 14 May:

1) Air Superiority had been achieved along the entire Western front.

2) The decisive breakthrough operation on the middle sector of the front had been carried through with success -- with the decisive assistance of the Luftwaffe. The way to the Channel was now open to the forward panzer units making up the advance wedge.
Their vulnerable southern flank was being screened by the Luftwaffe alone.

3) Along the extreme northern sector of the front, the air landing operation in Fortress Holland had been brought to a successful conclusion. The bombardment of Rotterdam had been followed by the capitulation of the Dutch Army.
The northern pillar of defense had been eliminated from the operational planning of the Western Allies -- thanks to the initiative of the Luftwaffe.

Significantly large elements of the Army and the Luftwaffe had been freed for assignment elsewhere.

Thus the strategic thinking and planning of Germany's air leaders had been fully substantiated -- at a surprisingly early stage of operations. The application of the secret of success learned during the campaign in Poland, the repetition of the Blitzkrieg on the ground and in the air, had borne fruit once again. This seemed all the more significant in view of the fact that the Luftwaffe had gone into action under circumstances vastly different from those obtaining in Poland eight months before.

In the West the Luftwaffe was facing an enemy believed -- in the beginning, at any rate -- to be numerically, technically, and professionally a match for it. It was realized that weather conditions in the West would be far less favorable than in Poland, whose climate is subject to Continental influences. Amd it was clear from the beginning that the task of providing air support for the Army would be far more important in the West than in Poland, where the principle mission of the Luftwaffe had been the elimination of the Polish Air Force, which, moreover, had been inferior to the German air units.

Nevertheless -- the gamble succeeded.

Both Air Fleets had made a beginning in the strategic air operations envisioned by German air leaders. On the second day, however, the chief responsibility for this task had clearly devolved upon the Third Air Fleet.

While the Second Air Fleet was primarily occupied with providing both direct and indirect support for the operations of the Army -- which was inevitable in view of the missions assigned to it and the make-up of its forces --, the Third Air Fleet utilized the majority of the long-range bomber units assigned to it to carry out the operations of a strategic air war.

While the Second Air Fleet succeeded in eliminating the Dutch and Belgian air forces, which were inferior to the Luftwaffe in any case, it was due solely to the Third Air Fleet that the French Air Force and the British units stationed on the Continent could be put out of action as soon as they were. Nevertheless, the Third Air Fleet was still able to shift its area of concentration to the provision of indirect air support for the Army, in a number of actions which were of great importance for the focal point of the operation as a whole, and finally to concentrate the majority of its forces in direct support of Army operations at the decisive moment.

At the same time, the VIII Air Corps began to shift its main effort into the operational area of the Third Air Fleet, until it was then subordinated to the latter two days later.

Thus, for the moment, the focal point of air operations had shifted to the combat area of the Third Air Fleet.

CHAPTER VII

The Employment of the Luftwaffe in Strategic Operations until the Achievement of Air Supremacy

~~15 through 20 May 1940~~

1. ~~The Ground Situation on 15 May~~

The ground situation along the entire front is illustrated by the map "Status of Combat as of 15 May", which is included with this chapter[1].

The following are the individual factors (described very briefly) which go to make up the situation reflected by the map:

1) In Holland, the air landing operation against Fortress Holland had come to a close. The Dutch Armed Forces had capitulated and were thus eliminated as a factor in the strength potential of the Allies.

   The Eighteenth Army was freed for assignment elsewhere, and elements of it were already moving towards the south.

2) In Belgium, north of the Sambre-Meuse line, the German Sixth Army was preparing for a breakthrough across the Dyle between Antwerp and Namur, to be carried out with the support of the Luftwaffe. The breakthrough was to be completed by the following evening.

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1 - The map is taken from the book "Deutschland im Kampf" (Germany in the Midst of the Struggle), published by the Wehrmacht High Command and the Ministry of Propaganda. See Appendix 66.

Far in the rear of the Army, the fortifications of Liege were still encircled and being battered down by the Army and the Luftwaffe.

3) In Belgium, south of the Sambre-Meuse line, the Fourth Army had forced its way across the Meuse between Fumay and Namur and was advancing in the general direction of Maubeuge. It served to cover the right flank of the German panzer wedge, which was advancing south of it.

4) In northeastern France, the gap across the Meuse in the Charleville-Sedan area was being widened to permit a full-scale breakthrough to the west. Preparations are under way for the decisive operation to be carried out by the Panzer Group von Kleist. By the evening of 15 May, the forward elements of the XXXXI Corps (the Panzer Corps Reinhardt), coming from Charleville, had reached Montcornet (thirty-four miles west-southwest of Mezieres), and the XIX Corps (the Panzer Corps Guderian) had arrived in the area between Sedan and Rethel.[2]

5) Other tank units were covering the area south of Sedan towards the south, while the Infantry Corps, south of Carignan, had been pushing forward towards the south.[3]

To the east, as far as the former German border, the situation remained much the same as before, apart from a few minor gains along the front.

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2 - According to the situation map of the Army High Command for the evening of 15 May.

3 - The place names mentioned so far along the breakthrough front can be found on the map included in Appendix 59.

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6) Nor had there been any significant change in the front in the operational area assigned to Army Group C.

The main event of 15 May was the successful German breakthrough on the middle sector of the front.

2. ~~The Air Situation on 15 May~~

The air situation had been defined without any doubt on the previous day, when it had become clear that air superiority belonged to the German Luftwaffe.

Churchill[4] has confirmed the costly and -- in the last analysis -- unsuccessful missions of the Allied, and particularly the British, bomber and close-support forces. The far-reaching effects of the "cruel" losses suffered by the British attacking force on 14 May have recently been confirmed once more by another British source[5]. According to it, "65% of the seventy-one bombers employed were lost during the afternoon's combat". A bit further along it is reported that in an evening attack carried out by twenty-eight Blenheim bombers and a strong fighter escort, five aircraft were destroyed and two forced to land in France. "Of a total force of 109 Blenheims and Battles assigned to bombard German marching columns and communications lines in the Sedan area, 45 were lost. This made it quite clear that there was no point in continuing such attacks during the daylight hours. On 15 May daylight attacks were discontinued." So much for the British source.

The above information is significant in that it substantiates the statement made in the concluding observations of the preceding chapters to the effect

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4 - See Footnote 9, Chapter VI.

5 - History of the Second World War, United Kingdom Series; "The War in France and in Flandres 1939-1940", page 56 of the partial translation available in the Karlsruhe Document Collection.

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that the question of air superiority had been decided in favor of the German Luftwaffe. And in view of the heavy daytime losses of the Battle units of the Advanced Striking Force, on 15 May British tactics shifted to "night commitment over the Sedan area". Strangely enough, this fact is not mentioned in the documents of the office of the Commander in Chief, Luftwaffe. It can be concluded that the practical application of the new RAF tactics was not noticeably effective in the beginning.

There is something else, however, something directly connected with the British decision to discontinue daytime attacks in the area of operation, which seems significant in view of the data contained in the same source. The British history of the war continues: "But the night of 15/16 May is an important milestone in the history of the RAF because it was the first night during which the RAF attacked German industrial targets along the Ruhr." The source goes on: "During the first night seventy-eight heavy bombers were sent out from England against German fuel plants, nine bombers against blast furnaces and steel plants, and nine against railway shunting yards." According to the same source, "all of them got back safely, which was a good omen for the future and for the vital preservation of British air power."

If one interprets this report carefully, one will see that it

substantiates the statement made previously in the present study, namely that the early night attacks on the Ruhr District had been carried out chiefly as training and navigation practice flights. Now, according to the British source, it would seem that the main emphasis had been placed on the bombardment of the German armaments industry -- Allied conduct of the air war was entering upon a new phase. The effectiveness of these operations will be discussed in a later context.

The external motivation for this decision, in any case, is implausible and strongly influenced by a propagandistic tendency -- it was the "ruthless bombardment of Rotterdam on 14 May" which provided the real, moral incentive. The internal motivation, however, was quite different: "..... it was assumed that a British attack on vitally important targets on the Ruhr would cause the enemy to turn his attention to this country (England) and to cut down on his attacks on France and Belgium." This assumption and these hopes were by no means fulfilled. The German Luftwaffe was now in a better position than ever before to continue its systematic support of ground operations and to make a genuine contribution to the overall success of German operations on the Continent -- all without interference from the Allied air forces. In this particular point, the British guess was wrong.

There remains the question of whether the German military leaders recognized this fundamental change in the British conduct of the air war and, if so, in how far they reacted to it.

According to the situation report of the office of the Commander in Chief, Luftwaffe, concerning the events of the night of 15/16 May, enemy air activity had been practically the same as during the preceding nights. According to the report, on 15/16 May "twenty-three enemy aircraft were reported over the area of Emmerich-Bochum-Schnee-Eifel". The aircraft, clearly British, dropped approximately 200 bombs over fifty different targets. This bombardment, too, was termed "planless" by the report. During the night of 16/17 May, "fourteen enemy aircraft" were reported, "coming from Holland and Belgium". These aircraft dropped a total of fifty bombs, "which caused only slight damage". The focal point of the attacks was again in the Rhine/Ruhr District.

Here is an obvious discrepancy between the British and the German sources. If it is true that the Royal Air Force had shifted to the systematic bombardment of the Ruhr District, then German air leaders had apparently failed to recognize this change in the conduct of Allied air operations. The only other possible explanation is that the British air commanders were trying to explain and excuse their resigned renunciation of any attempt at intervening effectively in the ground operations of the enemy in the West by bringing in an -- ex post facto -- alteration in ~~their~~ the area of concentration of their air operations.

As far as we are concerned at the moment, the clarification of this question is irrelevant. The fact remains that no changes

were made in the conduct of German air operations on the basis of the British decision.

The British bomber and close-support forces had withdrawn more or less voluntarily from the decision-seeking struggle going on on the Continent.

The French Air Force, which might otherwise have been a threat to the German ground operations in the days to follow, was either beaten, weakened, or paralyzed -- or was simply being held back. In addition, it was not up to its task qualitatively, a fact which is not only confirmed by German sources but -- making it almost more credible -- also by British ones[6].

All that remains is to evaluate the defensive power of the Western air forces.

It was precisely in this phase of development that -- as a result of the heavy losses suffered by the British air units at Sedan -- the question of transferring additional fighter units from England arose for the first time. The problem was how much air strength could be withdrawn from the British Isles without dangerously weakening the British home air defenses. The commander of the home fighter defenses, Air Marshal Dowding, had told Churchill that "with twenty-five squadrons of fighters" he could "defend the island against the whole might of the German Luftwaffe,"

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6 - Winston Churchill, The Second World War - Their Finest Hour, page 58 (of the German edition), referring to 12 May and discussing the qualitative superiority of the Royal Air Force over the French Air Force: "The superiority of the Royal Air Force in quality, if not in number, was already clear."

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but that with less he would be overpowered[7].

The arguments between the French and British top-level commands as to the advisability of strengthening the defensive air forces on the Continent by the transfer of additional British fighter squadrons went on. Valuable time was lost, and finally the British views prevailed, namely that the majority of the British fighter units would have to be held back for future home air defense of the British Isles. This view was bound to seem all the more justified considering that the British fighters, like the British bombers and close-support units, had suffered extremely heavy losses[8].

Thus, at this decisive turning-point in the air war, Allied military leaders not only discontinued the daytime attacks by bombers and close-support aircraft on the operations of the German ground forces, but also gave up any chance to combat the Luftwaffe itself by means of reinforced fighter defenses on the Continent.

As a result, the weakened remnants of the French offensive and defensive air units were left to face German air superiority more or less alone.

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7 - See Footnote 6 (pages 60 and 61 of the source there cited).

8 - History of the Second World War, "The War in France and in Flandres 1939-1940", page 57. According to this source, British fighter losses amounted to twenty-five on 15 May alone.

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3. Changes in the Command and Organization of the Luftwaffe after 15 May 1940

This decisive day of 15 May also marked the beginning of a number of changes in the command set-up and organization of the German Luftwaffe, changes made necessary by the development of the strategic situation at this point. They resulted primarily in a new distribution of forces and, consequently, in a number of alterations in the theaters of operation.

For this reason these changes will be discussed before we go on with our account of the operations themselves, so that the basic background will be perfectly clear. At the same time, we shall mention all subsequent changes which became effective during the further course of Operation YELLOW (Gelb).

1) After the completion of its mission in Holland, General Student's Air Landing Corps was withdrawn and transferred back to the home area to be brought up to strength. This was on 14 May. In the home area the Corps remained directly subordinate to the Commander in Chief of the Luftwaffe.

2) Once the operations in Holland had been brought to an end, the office of the Special Duty General ceased to exist. The operations staff was disbanded and the air units were transferred to the command of the IV Air Corps (Second Air Fleet).

3) The office of the Fighter Commander 2, which had been under the command of the Sepcial Duty General, was returned to the

command of the Second Air Fleet and placed in charge of the majority of the Fleet's fighter units[9].

4) The VIII Air Corps, previously under the command of the Second Air Fleet, was transferred to the Third Air Fleet by order of the Commander in Chief, Luftwaffe, on 16 May. During the last few days the VIII Air Corps had been operating on two fronts and had been providing air support not only for the Sixth Army (Army Group B !) but also for the Panzer Group von Kleist (Army Group A). From 17 May on, the Corps was employed exclusively in the operational area of the Third Air Fleet[10].

5) The I Air Corps, heretofore assigned to the Third Air Fleet, was reassigned to the Second Air Fleet to replace the VIII Air Corps. This change helped to lengthen the left wing of the Air Fleet towards the south.

As a result of the change, the Second Air Fleet had two long-range bomber corps at its disposal (the I and the IV); it retained command of the II Antiaircraft Artillery Corps.

The effective date of this change in assignment cannot be established beyond a doubt at the moment. It can be assumed, however, that the switch of the VIII and I Air Corps was ordered at the same time and took place immediately, i.e. on 16 May[11].

6) Accordingly, from this point on, the Third Air Fleet had the following units under its command:

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9 - The post of Fighter Commander was still filled by Colonel von Döring, not General Osterkamp, as is indicated by Kesselring, op. cit., page 69.

10- See Chapter V of the present study.

F1 - According to Kesselring, op. cit., page 69, the I Air Corps was assigned to the Second Air Fleet effective 15 May. This corresponds approximately to the information given above.

II Air Corps (long-range bomber units)

V Air Corps (long-range bomber units)

VIII Air Corps (close-support units)

I Antiaircraft Artillery Corps

7) The 9th Air Division, which -- under the direct command of the Commander in Chief, Luftwaffe -- since the beginning of operations had been carrying out its specialized mission of laying air mines in Dutch, Belgian, French, and British harbors in the entire Channel area, was made subordinate to the Second Air Fleet effective 23 May[12].

8) The developments in the ground operations and the changes in the distribution of Luftwaffe forces brought about by them (as detailed in 1) through 7), above, inevitably brought about an alteration in the existing operational areas, a change in the demarcation lines between the two Air Fleets.

At present, however, there is no way for us to reconstruct the temporal and geographical schedule of these changes, since not a single order pertaining to them is preserved. Thus, we have no choice but to guess, from the later employment of the units assigned to the two Air Fleets, when and where changes in the distribution of targets, and thus in the operational areas, may have taken place.

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12 - The missions and activity of the 9th Air Division have been dealt with in detail in a special study by Colonel (GSC) Gaul, "Die Geschichte des F.d.Luft, der 9. Fliegerdivision und des IX. Fliegerkorps von der Aufstellung dieser Kommandostellen bus zur Wende der Kriegsjahre 1940/41" (The History of the Air Commander (F.d.Luft = Führer der Luft ? -- otherwise I have no idea), the 9th Air Division, and the IX Air Corps from the Date of their Establishment until the Turning-Point of the War, 1940/41). This study is avail-

~~Footnote~~ 12 (~~cont~~)

able in the Karlsruhe Document Collection and should be referred to in connection with the present study, in supplementation of which it was prepared.

We shall have occasion to refer to this study again later on, in connection with the conduct of the air war over the water, insofar as this is related to Operation YELLOW (Gelb).

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4. ~~Air Operations Prior to the Achievement of Air Supremacy, 20 May 1940~~

I. ~~Strategic Air Operations Designed to Screen the Flank of the Ground Operation~~

The period of time between the achievement of air superiority, on 14 May, and the establishment of total air supremacy, on 20 May, included the period of strategic air operations designed to screen the flank of the ground operation.

Like all slogans, the phrase "strategic coverage of the flank" should be used circumspectly, for naturally the screening of the Army operational flanks was not the only mission of the Luftwaffe during the period in question. Nor was this mission limited to this particular period. It is true, however, that during this phase it was the most important and at the same time the newest and most effective method in the strategic employment of the Luftwaffe.

It is not mere chance that this period coincides almost exactly with the lehgth of time required for the strategically decisive thrust of the panzer wedge through to its first objective, the Channel coast. For the surprisingly rapid achievement of this objective would not have been possible without the aid of the Luftwaffe in screening the flanks of the thrust operation. This provides clear evidence of the close interrelationship of ground and air operations.

Before we proceed to our account of the events which took place in the operational areas of the two Air Fleets, let us turn to the larger picture of the coordination necessary between the two in order to achieve the strategic objective already referred to.

As we have already mentioned, the change in the assignment of two Air Corps (the I and the VIII) also brought about changes in the operational areas concerned, although there are no documents available to substantiate this contention.

Nevertheless, by following the operations of the two Air Fleets and by comparing the problems assigned to and the missions carried out by them after 15 May, we can deduce with some degree of certainty that the I Air Corps, after its reassignment, was not transferred to the geographical area under the jurisdiction of the Second Air Fleet (neither to its take-off bases nor to its area of operations). Instead, it seems clear that the Second Air Fleet, in taking over command of the I Air Corps, extended its operational area to include the sectors previously assigned to the Corps. The southern demarcation line of the new area, which then became the line of demarcation between the Second and Third Air Fleets, cannot be clearly defined for the beginning of the period. The problem assigned to the I Air Corps remained the same for the time being; it was to continue to support the advance of the Fourth Army, which was fighting its way across the Meuse on either side of the Dinant-Givet area.

This automatically also provided for complete coverage of the depths of the operational area as a whole, for the areas covered by the IV Air Corps (Second Air Fleet) in the north and the II Air Corps (Third Air Fleet) in the south were adjacent.

By dint of painstaking evaluation of the available documents for one day of combat (17 May), we have succeeded in preparing a map which clearly shows:

1) the deployment of the individual Air Corps according to their areas of operations;

2) the concentration of air units in the depths of enemy territory for the purpose of providing indirect support for the Army and, above all, of screening the flanks of the ground forces engaged in the main operation; and

3) the presumable line of demarcation between the two Air Fleets.

From north to south, the map[13] shows first of all the operational area of the Second Air Fleet, with:

the IV Air Corps in Belgium, and

the I Air Corps in northern France.

South of the Somme, the operational area is contiguous with that of the Third Air Fleet. At this point the II Air Corps was assigned to that area. Although this is not substantiated, it can be assumed that elements of the IV Air Corps were also assigned to missions in this area from time to time.

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13 - See Appendix 61.
